PROSPECTIVE PAYMENT
ASSESSMENT COMMISSION

REPORT AND RECOMMENDATIONS TO THE SECRETARY, U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

APRIL 1, 1985

—ProPAC—

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PROSPECTIVE PAYMENT ASSESSMENT COMMISSION
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Stuart H. Altman, Ph.D.
Chairman

Donald A. Young, M.D.
Executive Director

The Honorable Margaret M. Heckler
Secretary
Department of Health and Human Services
Washington, D.C. 20101

Dear Secretary Heckler:

I am pleased to transmit to you the first annual report of the Prospective Payment Assessment Commission as required by Section 1886(e)(4) of the Social Security Act as amended by P.L. 98-21. This report contains twenty-one recommedations updating the Medicare prospective payments and modifying the Diagnosis Related Group (DRG) classification and weighting factors.

Since this is our first report, it also provides some history and background on the prospective payment system for those readers who are unfamiliar with this information. Finally, the report also describes in some detail problems concerning the prospective payment system identified by the Commission and provides an indication of our agenda for coming years.

Sincerely,

Stuart H. Altman

Stuart H. Altman, Ph.D.
Chairman

Enclosure

Table of Contents

Executive Summary

Executive Summary

In 1983 Congress enacted the most far reaching changes in the Medicare program since its establishment in 1965. Left behind was a cost reimbursement system that by general agreement had produced unacceptable hospital cost inflation. Congress mandated that the inpatient hospital care rendered Medicare beneficiaries would henceforth be paid on the basis of a prospective payment per case, using diagnosis-related groups (DRGs) to classify and label the hospital product being purchased.

This report is the product of the congressionally-established Prospective Payment Assessment Commission, fifteen individuals knowledgeable about the health industry who were vested with the responsibility of analyzing the new prospective payment system (PPS) and advising the Secretary of the Department of Health and Human Services and the Congress on ways of improving it. The recommendations emanate from a profound concern that the fundamental changes introduced October 1, 1983 be implemented in as fair, cost-effective, and quality-enhancing a manner as possible.

The Commission, which began meeting in December 1983, has focused its attention on two major questions:

1. By what percentage should Medicare's payments for hospital discharges in fiscal year 1986 increase or decrease (the "Update Factor")?
2. What changes, if any, should be made concerning payments to hospitals for specific treatments or procedures by the Medicare program (adjustments of DRG classifications and weights)?

The body of this report and accompanying technical appendixes explain the Commission's actions and decisions in substantial and technical detail. For purposes of this summary, six major points should be emphasized:

- The Commission's unanimous recommendations reflect five major priorities: maintaining access to high-quality health care; encouraging hospital productivity and long-term cost-effectiveness; facilitating innovation and appropriate technological change; maintaining stability for providers, consumers, and other payers; and basing decisions upon reliable and timely data and information.

- The Commission recommends that next year's Medicare hospital payments incorporate inflation in hospital input prices and higher costs due to treating sicker patients, minus one percentage point. This recommendation would result in payment increases significantly less than those of recent years. The inflation minus one percentage point represents the Commission's best judgment as to the net change in payments needed to provide scientific and technological advances in the hospital industry, balanced by changes in hospital productivity and in the hospital product. In particular, the Commission's calculations reflect a judgment and belief that appropriate, sustained, and necessary technological growth in the health care industry can be achieved in part by savings generated through improvements in hospital productivity.

- The Commission recommends action on two problems arising from PPS implementation. Specifically, the Commission urges the Secretary of the Department of Health and Human Services to move quickly to improve the current definition of hospital labor market areas, in order to better adjust PPS rates for area wage differences. The Commission also urges the Secretary to institute adjustments for hospitals that incur higher Medicare costs per case associated with treating a greater proportion of low income patients ("disproportionate share hospitals").

- For fiscal year 1986, the Commission recommends adjusting all of the DRG weights using newer, more complete, and more accurate data. Such adjustment or "recalibration" is intended to enable PPS to reflect changes in hospital practice during recent years. As part of the recalibration process, the weights should also be adjusted to avoid building changes in coding practice into future PPS

payments. The Commission's recommendations incorporate its review of a number of specific medical practices and technologies. Additional data collection and analysis regarding other such practices and technologies are required in order to reach well-informed conclusions.

- While making no recommendation at this time on the pace of transition to national payment rates, the Commission is aware of concerns that have arisen regarding the impact of that transition on different hospitals and regions. The transition issue involves weighing the desirability of continued implementation of a system already clearly yielding positive results, against the possible harms of delaying that transition to correct PPS inequities and shortcomings. The Commission will continue to analyze this important issue.
- The Commission offers its analysis and recommendations in an environment of debate concerning future directions in health care delivery and financing. The recommendations themselves are predicated on continued implementation of the current PPS system. They seek to address as sensibly as possible the tension among several compelling and competing considerations: Federal budgetary constraints; maintenance of Medicare beneficiaries' access to high-quality care; and changes in the hospital industry. Should any health policy proposals affecting PPS be adopted, the Commission will respond with appropriate analytical work.

The report that follows is by design and necessity a technical document. The Commission issuing it, however, remains mindful of the fact that the report's analysis, discussion, and recommendations will directly affect millions of Medicare beneficiaries—individuals for whom the pluses and minuses of the "Update Factor" will translate into a significant impact on the kind of life-giving treatment they receive.

OVERVIEW OF THE COMMISSION'S RECOMMENDATIONS

The Commission's 21 recommendations fall into two major categories: recommendations regarding the update factor and recommendations regarding adjustments of DRG classifications and weights.

The first 16 recommendations address the update factor. In recommendation 1, the Commission proposes updating the standardized amount by the projected increase in the hospital market basket, minus one percentage point, plus an allowance for the estimated increase in real case-mix complexity during fiscal year 1985. Several of the first 16 recommendations involve specific market basket issues, including the desirable number of such market baskets, wage components, and correction of forecast errors.

Recommendations 13 through 15 address distributional concerns. The Commission selected the definition of hospital labor market areas and disproportionate share hospitals as two problem areas of PPS deserving immediate attention in the establishment of the fiscal year 1986 payment rates. This does not imply that other problem areas are not also of great importance, but the Commission believes that the distributional consequences of these two problems are sufficiently severe, and the potential for finding workable solutions is sufficiently high, that immediate attention is warranted.

Recommendation 17 recommends recalibration of the DRG weights with a data base that is newer, more complete, and more accurate than the 1981 data used to create the current DRG weights. The Commission's recommendation reflects its belief that, because of potential inaccuracies in the data originally used to establish the DRG weights and changes in hospital practice patterns since 1981, a full recalibration for the 1986 rates is advisable.

Recommendations 18 through 20 pertain to specific DRG weight, classification, and assignment issues concerning three procedures: pacemaker implantation; cataract extraction and intraocular

lens implantation; and percutaneous transluminal coronary angioplasty. Recommendation 21 concludes that two additional procedures, bone marrow transplantation and treatment of infective endocarditis, do not require in-depth analysis at this time.

The Commission will make future recommendations concerning these and many other DRG weight, classification, and assignment issues, as new information becomes available.

THE COMMISSION'S FUTURE AGENDA

While much has been accomplished during the Commission's first year, many important PPS-related issues require further evaluation. The Commission looks forward to analyzing a variety of complex matters including:

- The measurement of case mix used for PPS and evaluation of alternative case-mix systems.
- Improvement in the methods used to account for resources consumed during specific types of hospital stays. Special emphasis will be placed on analyzing the allocation of nursing costs to DRGs.
- PPS payment policies, with emphasis on adjustments for differing costs of hospitals serving large numbers of low income patients, definitions of hospital market areas, and effects of the transition to national payment rates.
- System responsiveness to changes in practice patterns, focusing on payment mechanisms for new or changing technologies. In addition, a number of specific diagnostic and therapeutic practices are currently being examined:
  - —Cyclosporine used in renal transplantation
  - —Magnetic resonance imaging
  - —Dual joint procedures in one hospitalization
  - —Treatment for alcohol dependence
  - —Cochlear implants
  - —Extracorporeal shock wave lithotripsy
  - —Dermatologic disorders
- The effects of PPS on health care delivery, such as changes in quality of care and health outcomes, changes in types of patients treated in hospitals, changes in the hospital product, and regional practice pattern variations.

STRUCTURE OF THE REPORT AND APPENDIXES

The Commission's report consists of two volumes. In this volume, the Commission's first chapter presents background information concerning establishment of the prospective payment system. Chapter 2 identifies the major priorities and approaches underlying the Commission's recommendations. The recommendations themselves, along with explanatory material, appear in Chapter 3. The fourth and final chapter of the first volume explores areas and issues requiring substantial Commission attention in the year and years to come.

In developing its recommendations the Commission considered staff analyses and the views of numerous technical experts. The purpose of volume 2—the Technical Appendixes—is to present much of this background material to afford greater insight into the Commission's decisions.

The appendixes consist of both descriptive and analytical pieces covering the origins of the prospective payment system, the determination of prospective payments, the update factor, and DRG recalibration. They underscore many of the dilemmas and issues confronting the Commission during its deliberations.

LIST OF RECOMMENDATIONS

The Update Factor

Recommendation 1: Amount of the Update Factor

For fiscal year 1986, the standardized amounts should be updated by the projected increase in the hospital market basket, minus one percentage point, plus an allowance for the estimated increase in real case-mix complexity during fiscal year 1985. The negative one percentage point is a combined adjustment of a positive allowance for scientific and technological advancement and a negative allowance for productivity improvement and hospital product change.

This recommendation reflects the Commission's collective judgment of the appropriate increase in the level of payment per Medicare discharge under PPS, assuming that the Commission's other concerns regarding the market basket component of the update factor, the DRG weighting factors, and the distribution of payments across PPS hospitals are also addressed in the fiscal year 1986 payment rates. Further, this recommendation is based on the premise that no net reductions or increases in average per case payments to hospitals will be effected through measures other than the update factor, such as reducing the indirect teaching adjustment, incorporating capital payment under PPS at a budget-saving level, adjusting for coding changes occurring before fiscal year 1985, or any other changes in total payments per discharge under PPS.

The Hospital Market Basket

Recommendation 2: The Number of Market Baskets

For fiscal year 1986, a single market basket should be continued for those hospitals under PPS. The Commission will undertake a study to determine the appropriateness of developing market basket measures that reflect variation in economic factors across hospitals. The use of multiple market baskets by region and classes of hospitals within regions will be examined. If the analysis indicates that multiple market baskets are appropriate, the study will also include an assessment of the data required for implementation.

Recommendation 3: Market Basket for Psychiatric, Rehabilitation, and Long-Term Care Hospitals

Separate market basket weights should be used for the group of psychiatric, rehabilitation, and long-term care hospitals and related distinct-part units that are exempt from PPS, but subject to the TEFRA rate of increase limitation. Separate market basket weights need not be developed for children's hospitals.

Recommendation 4: Market Basket Wage Component—Occupational Groups

The wage component of the market basket should be split into three categories, each with separate weights: Managers and Administrators, Professionals and Technicians, and Other Hospital Workers. Changes in wages for these categories should be measured as follows:

- Managers and Administrators: the Employment Cost Index (ECI) for Managers and Administrators.
- Professionals and Technicians: a 50-50 blend of the Average Hourly Earnings (AHE) for the hospital industry and the ECI for Professionals and Technicians.
- Other Hospital Workers: a 50-50 blend of the AHE for the hospital industry and the ECI for all private industry.

Recommendation 5: Employment Cost Index Feasibility Study

For the long run, the Secretary should work with the Bureau of Labor Statistics to study the advantages and feasibility of developing an Employment Cost Index for the hospital industry that includes both public and private hospitals and covers increases in both wages and fringe benefits.

Recommendation 6: Study Effects of Changes in the Minimum Wage Law on Hospital Workers

The Commission plans to study the extent to which hospital workers would be affected by changes in the Federal minimum wage law. The intent of the study is to detect whether, under PPS, workers who earn more than the minimum

wage are differentially affected by statutory increases in the minimum wage compared with workers in other industries. If a differential effect is found to exist, the Commission will consider requesting the Secretary to take appropriate action.

Recommendation 7: Correction of Market Basket Forecast Errors

The update factor should include a correction for substantial errors made in the previous year's forecast of changes in the external price measures used in the hospital market basket. In the judgment of the Commission, substantial errors are those that equal or exceed 0.25 percentage points (or, when rounded in the published forecasts, 0.3 percentage points). The Commission will undertake a study to determine the extent to which differences between forecasted and actual increases in the internal price change measures are due to factors beyond the hospitals' control. Substantial errors determined after study to be due to factors beyond the hospitals' control should be corrected in the update factor.

Recommendation 8: Statutory Change for Forecast Error Correction

The Secretary has determined that she does not have the statutory authority to correct for market basket forecast errors. Therefore, the Secretary should seek statutory change to provide explicitly that the update factor include a correction for errors in forecasting the market basket beginning in fiscal year 1986.

Recommendation 9: Rebasing of Market Basket Weights

Market basket weights should be rebased at least every five years. Rebasing should be performed more frequently if significant changes in the weights occur. In addition, the market basket weights will need to be rebased if payment for capital or direct medical education is included in the PPS rates.

Discretionary Adjustment Factor

Recommendation 10: Allowance for Productivity and Scientific and Technological Advancement Goals

For the fiscal year 1986 payment rates, the allowance in the discretionary adjustment factor for scientific and technological advancement, productivity improvement, and hospital product change should be set at minus one percentage point.

Recommendation 11: Adjustment for Case-Mix Change

Prospective payments to individual hospitals and in the aggregate should reflect real changes in case mix. Changes in reported case mix that are unrelated to actual differences in the types of patients treated should not be built into future PPS payments.

Recommendation 12: Update Factor for Exempt Hospitals

In addition to the projected increase in the market basket, hospitals and hospital distinct-part units exempt from PPS should receive a minus one percentage point adjustment in their fiscal year 1986 update factor for productivity improvement and scientific and technological advancement.

Hospital Labor Market Areas—Area Wage Index

Recommendation 13: Improvement of Labor Market Area Definitions

In order to better reflect hospital labor markets, the Secretary should improve, as soon as possible, the current definition of a hospital labor market area used to adjust PPS rates for area wage differences, taking into account variations in wages paid in the inner city compared with suburban areas within a metropolitan area, and variations paid in different rural locations within a state. Implementation of this recommendation should not result in any change in aggregate payments.

Disproportionate Share Hospitals

Recommendation 14: Disproportionate Share Adjustment for Fiscal Year 1986

The Secretary should develop a methodology for adjusting PPS rates for disproportionate share hospitals and implement the adjustment in fiscal year 1986. The adjustment should be implemented so that it does not change aggregate payments.

Recommendation 15: Definition of Disproportionate Share Hospitals

The Secretary should complete the development of a definition of disproportionate share hospitals in ample time to include adjustments for these hospitals in the fiscal year 1986 PPS payment rates. The Secretary should consider broader definitions of low income than simply the percentage of patients who are Medicaid recipients and should determine whether the share of Medicare Part A patients should be excluded from the definition.

Rebasing the Standardized Amounts

Recommendation 16: Rebasing the Standardized Amounts

The standardized amounts used to determine hospital payments under PPS should be recalculated using cost data that reflect hospital behavior under PPS. The results of such a recalculation, with appropriate modifications, could be used to rebase the standardized amounts. Although recent cost data are not available to recalculate the standardized amounts for the fiscal year 1986 payment rates, the Secretary should implement a process for timely collection of the cost data necessary for future recalculation. The Commission will later consider more specific recommendations regarding the timing, data sources, and process for rebasing the standardized amounts.

DRG Classifications and Relative Weighting Factors

Recommendation 17: Recalibrating the DRG Weights

For fiscal year 1986, all DRG weights should be recalibrated using the 1984 PATBILL data set. The newly recalibrated weights should be:

(1) Normalized so that the average case weight is the same as it was at the beginning of fiscal year 1985, thereby incorporating DRG weight adjustments made before the start of fiscal year 1985

(2) Adjusted for any demonstrable changes in reported case mix occurring during fiscal year 1985

Recommendation 18: Cardiac Pacemaker Implantation

The DRGs involving cardiac pacemakers, DRGs 115, 116, 117, and 118, should be recalibrated in the same manner as other DRGs to reflect changes in practice since 1981. The Commission will continue to analyze diagnosis and procedure coding and DRG classification related to pacemaker implantation and replacement; the distribution of costs and payments across discharges, hospitals, and DRGs; and the impact of PPS on the quality of patient care.

Recommendation 19: Cataract Extraction and Intraocular Lens Implantation

DRG 39, Lens Procedures, should be recalibrated in the same manner as other DRGs to reflect changes in practice since 1981, including the more frequent implantation of an intraocular lens following cataract removal. The Commission will continue to monitor resource use in this DRG to determine whether the types of patients treated as hospital inpatients change with increased outpatient surgery for cataract removal.

Recommendation 20: Percutaneous Transluminal Coronary Angioplasty

Cases in which Percutaneous Transluminal Coronary Angioplasty (PTCA) is the principal procedure should be removed from DRG 108 and temporarily assigned to DRG 112 before recalibration. The Secretary should immediately implement a mechanism to identify bills for cases in which PTCA is performed in order to provide data for analysis and additional adjustments as appropriate.

Recommendation 21: No Change Recommended for Bone Marrow Transplantation and Infective Endocarditis

The Commission has examined Bone Marrow Transplantation and Treatment for Infective Endocarditis and is recommending no changes in DRG classification or weights at this time, other than those that would occur with recalibration. Information will continue to be gathered and the subjects reconsidered at an appropriate time.

Chapter 1

Introduction and Background

Chapter 1

Introduction and Background

The Medicare prospective payment system (PPS) for payment of inpatient hospital services was enacted by the Social Security Amendments of 1983 (Pub. L. 98-21). Accompanying this new payment system, the Congress created the Prospective Payment Assessment Commission (ProPAC) to advise the executive and legislative branches on maintaining and updating PPS.

This report contains the Prospective Payment Assessment Commission's recommendations to the Secretary of the Department of Health and Human Services (HHS) for updating and modifying Medicare's prospective payment system for inpatient hospital care. This chapter describes the Commission's role and responsibilities and summarizes historical trends in national health care expenditures that preceded the adoption of PPS. It also explains measures adopted to restrain the growth of Medicare hospital expenditures, including the development and operation of PPS. Chapter 2 states the priorities that guided the Commission in reaching its recommendations and that will be considered by the Commission in the future. The Commission's recommendations are presented in Chapter 3, and Chapter 4 specifies areas for further study and consideration.

THE PROSPECTIVE PAYMENT ASSESSMENT COMMISSION: ITS ROLE AND RESPONSIBILITIES

The prospective payment system significantly changed the Medicare program's method of payment for inpatient hospital care provided to Medicare beneficiaries. At the time of enactment, the Congress created a permanent, independent commission with responsibilities related to maintaining and updating this new system. The Prospective Payment Assessment Commission was established with 15 members appointed by the Director of the Office of Technology Assessment, Congress of the United States. Members are selected, as required by the law, to provide independent expertise and experience in health care delivery, financing, and research. (Biographies of current Commission members appear in this report's appendix.)

Commission Mandate

The Congress intends the Commission to be a highly knowledgeable, independent panel. The Commission's role is to advise the executive and legislative branches on PPS and to provide analysis necessary to maintain and update the system. This report fulfills the Commission's two primary responsibilities mandated by Pub. L. 98-21. These are to:

- Recommend annually to the Secretary of the Department of Health and Human Services the appropriate percentage change in the Medicare payments for inpatient hospital care, called the "update factor," which is applied to the previous year's payment rates.
- Consult with and recommend to the Secretary of the Department of Health and Human Services necessary changes in diagnosis-related groups (DRGs), including advice about establishing new DRGs, modifying existing DRGs, and changing the relative weights of the DRGs.

In addition, the Commission will report to the Congress its evaluation of adjustments made by the Secretary of the Department of Health and Human Services to DRG classifications and weights, as required by Pub. L. 98-21. The Secretary is required to make such adjustments at least every four years, beginning with fiscal year 1986.

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The Commission will prepare reports to the Congress appropriate and necessary to meet its mandate to update PPS and to analyze and evaluate adjustments to the system. Finally, the Commission will annually report to the Congress on the overall effects of PPS on the delivery and financing of the nation's health care and prepare other reports that the Congress may request. The Commission's review of inpatient hospital payments for pacemaker implantation, required by the Deficit Reduction Act of 1984, was transmitted to the Senate Finance Committee and the House Ways and Means Committtee on March 1, 1985 (see Technical Appendix D).

Commission Processes and Policies

The Commission has a policy of open meetings and solicits comment and involvement from groups or people with information relevant to its responsibilities. A notice describing the process for interested parties to submit information to the Commission has been published in the *Federal Register* (50 Fed. Reg. 1657 [1985]). The policies and procedures adopted by the Commission for conducting business in a manner consistent with the law appear in this report's appendix.

The Commission members were appointed in November 1983 and held their initial meeting in December 1983. Early in 1984, the Commission selected an Executive Director who began hiring staff, securing office space and supplies, establishing liaison with governmental and private sector organizations, and developing analytic systems to support the work of the Commission. Partial year funding of $1.5 million was appropriated for the Commission's work during the period covering fiscal year 1984. A full-funding request of $3.2 million (including unexpended carryover funds from fiscal year 1984) was appropriated by the Congress for ProPAC's first full year of operation, fiscal year 1985.

The Commission prepared this initial report while hospitals were in the early phases of payment under PPS. While the report contains specific recommendations for immediate consideration and implementation, the Commission views its role and responsibilities in a long-term context. The Commission's priorities and activities, as described in the remaining chapters, are intended to both correct technical deficiencies in the system and develop more fundamental improvements.

THE CHANGING HEALTH CARE ENVIRONMENT

The Commission undertakes its responsibilities at a time of significant change in the organization, delivery, and financing of health care services. Medicare's prospective payment system parallels private-sector efforts to increase efficiency in the delivery of health care. New financial incentives encourage providers to reduce costs by curtailing the provision of services with limited benefit and delivering services in lower-cost settings. At the same time, advances in technology have made it possible to shift services from hospitals to ambulatory settings and patients' homes.

Significant change in the delivery of health care services was motivated, in part, by rapidly growing health care expenditures during the last two decades. The increase in national health care spending followed the expansion of public and private health insurance coverage. In general, the policies of third-party payers emphasized inpatient hospital care and frequently reimbursed providers on the basis of their costs. Increased financial access to health care, especially hospital care, and greater use of services for large numbers of persons inevitably resulted in increased public and private spending. Further, cost-based reimbursement lacked incentives to provide care in the most efficient manner or balance the cost of additional care with expected improvements in health status.

National Health Care Expenditure Growth

National health care expenditures rose from $35.9 billion in 1965 to $355.4 billion in 1983. This tenfold rise in health care spending outpaced the

growth of the general economy. As a result, national health expenditures accounted for 10.8 percent of gross national product (GNP) in 1983, whereas in 1965, they accounted for only about 3.9 percent of GNP.

The increased spending between 1965 and 1983 can be attributed to three interacting factors:

- Increased input prices, the higher prices paid for the resources used to produce medical care services, account for about 62 percent of the increased spending.
- Greater use of services, for example more physician visits per capita, and greater intensity, such as additional diagnostic tests per hospital admission, together explain about 30 percent of the increase.
- Increased population accounts for about 8 percent of the increase.

Medicare expenditures rose from $7.1 billion in fiscal year 1970 to $65.0 billion in fiscal year 1984, reflecting overall health care spending growth. Outlays from the hospital insurance (HI) Trust Fund for inpatient hospital care increased from $4.2 billion in fiscal year 1970 to $39.7 billion in fiscal year 1984. In the same period, expenditures for supplemental medical insurance (SMI), which pays for physicians' services and other outpatient services, rose from $2.2 billion to $20.4 billion.

Responses to Increased Health Care Spending

Faced with unprecedented deficits in recent years, the Federal government has attempted to purchase services more prudently and has encouraged greater competition in the health sector. In addition to hospital prospective payment, Medicare expanded availability of coverage for care in risk-based competitive medical plans (CMPs) and health maintenance organizations (HMOs). New ambulatory surgery and hospice benefits were added and changes were made in payment policy for dialysis, clinical laboratories, and other services. Many states also have implemented changes, including adopting their own prospective payment systems and contracting with providers for services in their Medicaid programs.

In addition to governmental efforts, business and labor have become active participants in controlling health care costs. They often have cooperated in the redesign of health benefits, emphasizing ambulatory over inpatient care, effective hospital utilization review, preadmission certification of necessity, and surgical second-opinion programs. Many employers have increased employee cost-sharing and others have become cost-conscious health care buyers, often choosing to self-insure the risk of providing health benefits for employees.

Both the public and private sector have supported alternative delivery and financing arrangements. The portion of the population enrolled in HMOs rose from 3 to 6 percent between 1975 and 1984; enrollment increased by more than 20 percent between 1983 and 1984. The interest in alternative delivery systems also led to the development of new arrangements, such as preferred provider organizations (PPOs). Through PPOs, firms and business coalitions have negotiated discounts for health care provided to their employees.

In addition to changes in financial incentives, other significant changes will influence the direction of health care spending in the next decade. For example, the supply of active physicians has risen substantially during the 1970s and will continue to expand rapidly. By 1990, the nation's supply of active physicians will be one-third larger than it was in 1980. Increases in numbers of physicians have encouraged the development of new forms of health care financing and delivery, but the effect of the increased physician supply on total health care expenditures over the next decade is uncertain.

There are also subtle changes in public attitudes toward health maintenance and health care, with increasing numbers of people taking a more active role in maintaining and improving their state of health through "wellness" programs that include changes in life-style, such as increased physical exercise, reduced cigarette smoking, and modified diet. Faced with a growing amount of cost-sharing, consumers are also beginning to seek out

less costly, more convenient, and often more personal alternative health care providers. The movement from the hospital to ambulatory settings for surgery and other services has been generally accepted. Nevertheless, the public places a priority on high-quality health care, including access to sophisticated diagnostic and treatment services usually available only in the hospital.

MEDICARE HOSPITAL REIMBURSEMENT AND THE DEVELOPMENT OF PROSPECTIVE PAYMENT

The adoption of the prospective payment system followed the recognition that retrospective, cost-based reimbursement did not sufficiently encourage efficiency and concern for costs. In the years preceding enactment of PPS, prospective limits were applied to routine inpatient hospital costs to restrain increasing Medicare outlays. In the year immediately prior to enactment of PPS, limits were extended to all inpatient operating costs. As an incentive for efficient delivery of health care, hospitals were rewarded if their costs were below these limits.

Reasonable Cost Reimbursement

The Congress balanced many political, structural, and policy interests in the enactment of Medicare in 1965. In the area of payment for inpatient hospital care, the choice was between paying hospital charges or the "reasonable costs" associated with care for beneficiaries. The Congress selected the latter approach because it was considered fair to hospitals and ensured access to hospital services for beneficiaries.

Extensive administrative regulations and operating instructions defined reasonable costs and detailed methods for determining them. These regulations and instructions changed many times over the years in an attempt to keep them current with hospital practices and to more accurately reflect reasonable costs. Cost determination was retrospective and used complex allocation formulas to separate the costs of Medicare beneficiaries' care from a hospital's total costs. Despite this complexity, however, the system responded to hospital cost increases simply by providing increased reimbursement—the greater a hospital's costs, the greater was its Medicare reimbursement.

Development of Prospective Reimbursement Approaches

As early as 1967, the Congress recognized that the retrospective, reasonable cost reimbursement system lacked incentives for hospitals to hold down costs. The Social Security Amendments of 1967 directed Medicare to experiment with different reimbursement methods and, in particular, called for "incentive reimbursement" studies. These studies had limited usefulness, however, because hospital participation was voluntary.

In the 1972 Social Security Act Amendments, the Congress enacted much broader experimental authority directing Medicare to proceed with prospective payment experiments and demonstrations. The amendments encouraged states to develop alternative hospital reimbursement methods by allowing Medicare to grant waivers that permitted Medicare's hospital reimbursement to be governed by a state's rate-setting program. In describing this new authority, congressional committee reports stressed the need for incentives in the system to moderate health expenditure growth.

The foundation for prospective hospital reimbursement was broadened by Section 223 of the Social Security Amendments of 1972, which authorized HHS to set prospective limits on costs. Under this authority, the Department set limits on routine per-diem hospital inpatient operating costs. At that time, the absence of good case-mix measures prevented applying limits to special care and ancillary costs. The Congress continued to move toward prospective payment for Medicare services in the 1978 End Stage Renal Disease Amendments which, for the first time, prospec-

tively set payment rates for a Medicare service, outpatient dialysis. The 1978-79 debate over hospital cost containment increased understanding of the problems of hospital payment and fostered a consensus that retrospective cost reimbursement should be replaced.

During this period, HHS began a comprehensive program of research, experimentation, analysis, and evaluation of prospective hospital reimbursement methods to support Medicare cost control measures. A key element in the research and experimental work was the recognition that any prospective system would require recognition of a hospital's case mix. Because different hospitals treat different kinds of patients and cases, a major equity issue was how to compensate hospitals adequately when the resources required differed for the care of patients with different conditions. The development of a technically acceptable case-mix measure was, therefore, a critical step in the development of approaches to prospective payment.

In the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), the Congress expanded the existing prospective cost limits from routine to total inpatient operating costs and required that these costs be adjusted by a case-mix measure. The use of total cost per-case limits was possible because a workable case-mix measure was developed in the late 1970s following work at Yale University in the development and refinement of diagnosis-related groups. Although the system remained retrospective and based on costs, it established additional cost-limitation incentives. Payment for inpatient hospital services was based on the relationship between a hospital's costs and a ceiling determined by a target rate of increase in operating costs per case. If a hospital incurred allowable costs per case below the target amount, it was paid its costs plus a certain percentage of the difference. If a hospital incurred allowable costs per case above the target amount, however, it was to have been paid the target amount plus, in 1983 and 1984 only, one-quarter of the excess cost.

The penalty and bonus concept embodied in TEFRA, designed to encourage hospital efficiency, represented a significant step toward the system of prospective payment eventually adopted. The Congress required the Department of Health and Human Services to develop a full prospective payment proposal for congressional consideration by the end of 1982. This deadline was met, and the resulting proposal, as modified by the Congress, became the current PPS.

MEDICARE'S PROSPECTIVE PAYMENT SYSTEM

Medicare's prospective payment system, enacted in April 1983, incorporated several objectives:

- Ease of understanding and simplicity of administration and implementation,
- Predictability of payment for hospitals and the Federal government,
- Establishment of the Federal government as a prudent purchaser of services,
- Reduction of administrative burdens on hospitals,
- Provision of rewards for efficient operation, and
- Limitation on beneficiary liability only to those coinsurance and deductible amounts previously mandated by the Congress.

Development of Diagnosis-Related Groups for Case-Mix Measurement

The DRGs used in PPS were developed at Yale University to measure case mix and were modified and refined over a period of more than 12 years. There were several constraints on developing the case-mix measure eventually used in PPS. The most important was the complete reliance on the limited information contained on the uniform hospital discharge data set (UHDDS).

DRGs measure the output of a hospital by classifying patients into 23 groups, called major diagnostic categories (MDCs). These groups are based on the major human body systems. The 23 MDCs are further divided by other factors, including diagnostic or surgical procedure used and the patient's age, sex, and other clinical service information. This results in 467 individual DRGs. (One additional DRG, number 468, is used in PPS for payment purposes for cases in which the principal diagnosis and the principal surgical treatment procedure do not logically "match.")

Development of Payment Amounts

Following a congressionally mandated outline, the Health Care Financing Administration (HCFA) established initial payment levels for each DRG based on 1981 cost and charge data. The initial year rates, for fiscal year 1984, were updated for fiscal year 1985 in a final regulation published August 31, 1984. ProPAC is required to make recommendations for updating payment levels for fiscal year 1986 and beyond.

Although several additional factors affect the final payment amount, the prospective payment for each discharge can be generally described by the following formula:

Standardized Amount × DRG Weight = Payment Per Discharge

There are eight primary features of hospital payments:

1. There are 20 standardized amounts, one urban and one rural amount for each of the nine Census Divisions and for the U.S. as a whole. These standardized amounts are adjusted for area wages, outlier payments, and indirect medical education payments. The current standardized amounts and the DRG weights were constructed from 1981 hospital cost report data and from Medicare inpatient bill charge data.

2. Certain hospital costs continue to be reimbursed on a cost basis and, thus, were excluded from the costs that were used as the basis for the prospective payments. These excluded costs include:
   - Direct medical education costs,
   - Capital-related costs,
   - Kidney acquisition costs,
   - Services of nonphysician anesthetists (for fiscal years 1985-1987), and
   - Medicare bad debt.

3. Additional payments are made under certain circumstances for:
   - Indirect medical education,
   - Unusually costly or long-stay (outlier) cases, and
   - Hospitals serving a high proportion of dialysis patients (starting in fiscal year 1985).

4. Payment amounts are adjusted annually by an update factor composed of the market basket (the price of goods and services purchased by hospitals) and an additional "discretionary adjustment factor" (DAF). The DAF accounts for changes in hospital productivity, technological and scientific advances, quality of health care, and long-term cost-effectiveness of services provided. Originally, the Congress set the DAF at one percentage point. Subsequently, the Deficit Reduction Act of 1984 limited the DAF to .025 percent in fiscal year 1985 and not more than .025 percent in fiscal year 1986.

5. In fiscal years 1984 and 1985, there was a statutory constraint that payments under the prospective payment system must equal the payments that would have been made if prospective payment had not been enacted. This requirement is referred to as "budget neutrality."

6. The prospective payment system is to be phased in over three years. During the first year, three-quarters of the hospital's payment is based on its own cost experience. In the subsequent two years, this percentage falls to one-half, and then one-quarter. The "Federal standardized amount " is based on Census Division averages in fiscal year 1984 and a blend of Census Division and national payments in the next two years. Separate payment amounts are used for rural and urban hospitals. In the fourth year, the entire payment will be based on national urban or rural standardized amounts.

7. To determine the amount each hospital is paid, the regional and national standardized

amounts are adjusted by a wage index to reflect differences in hospital wage levels around the country. Each urban area has its own wage index, and all rural areas in a state use a single wage index.

8. The prospective payment law provides for a number of exemptions, exceptions, and adjustments for groups of hospitals. Exemptions are provided for children's hospitals, long-term care hospitals, rehabilitation hospitals and units, psychiatric hospitals and units, Federal hospitals, alcohol and drug abuse hospitals and units (for fiscal years 1984 and 1985), and hospitals in states with approved alternate hospital reimbursement systems. Exceptions and adjustments are provided for sole community hospitals, hospitals devoted primarily to cancer treatment and research, and rural referral centers.

Adjustments for Changes in Case Mix

As one of the adjustments used to satisfy the requirement of budget neutrality, the initial PPS standardized amounts were lowered to account for the increases in case-mix complexity which were expected to occur under PPS. The HCFA actuaries used data compiled by the Professional Standards Review Organizations (PSROs) across the nation to estimate this expected change. These data indicated that DRG weights would be 3.38 percent higher when more complete diagnosis and procedure information was submitted. As a result, the standardized amounts for the first year of PPS were lowered to reflect the expected increase.

Experience during the first year of PPS (fiscal year 1984) indicated that DRG weights had increased considerably more than the 3.38 percent predicted by the PSRO data. Under the requirement of budget neutrality, the PPS payments for fiscal year 1985 needed to be lowered to offset this increase by either again lowering the standardized amounts or lowering all the DRG weights. A decision was made to lower all DRG weights for fiscal year 1985 by 1.05 percent (described in Technical Appendix A).

Chapter 2

Overall Approaches and Priorities of the Commission

Chapter 2

Overall Approaches and Priorities of the Commission

The Commission believes that the Medicare prospective payment system will have an impact on hospitals and the American health care system that extends beyond the impact on Medicare beneficiaries. Thus, the Commission's recommendations should be viewed in the context of a rapidly evolving health care system with PPS one significant part of the change.

In moving from cost-based reimbursement to the setting of a price in advance for the care of an individual patient, the prospective payment system significantly alters the incentives to hospitals. The Commission supports the incentives in PPS to increase hospital productivity and cost-effectiveness. The Commission also believes, however, that access to high-quality care must be maintained for Medicare patients.

Preliminary evidence suggests that hospitals are responding to PPS incentives, but it is too early to draw unequivocal conclusions regarding the overall positive or negative impact on the health care of Medicare beneficiaries. Nevertheless, the Commission is optimistic about the success of PPS and its recommendations are directed to improvements necessary to ensure continued success. Ongoing analysis and monitoring using more complete information is also necessary.

The following set of cross-cutting priorities has guided the Commission in the development of the recommendations in this first report. The Commission anticipates that in the future these priorities will continue to govern its recommendations concerning updating the payment rates and modification of the DRG classifications and weights.

MAINTAINING ACCESS TO HIGH-QUALITY HEALTH CARE

The maintenance of quality of care is a paramount concern of the Commission. The Commission is keenly aware that the financial incentives of the prospective payment system may lead hospitals to lower their costs of providing services in a variety of ways, some of which may potentially compromise the quality of care provided to Medicare beneficiaries. With its altered financial incentives for hospitals, the system creates the challenge of maintaining quality health care while restraining health care costs. Hospitals which are paid a fixed amount per type of case by Medicare and other payers (who adopt PPS or use other competitive strategies such as preferred provider organizations) can no longer be indifferent to the resources expended in patient care. PPS encourages a reduction of hospital inputs—tests, special procedures, supplies, equipment, personnel time, and hospital days—because hospitals can lower their costs only by controlling resources devoted to inpatient stays. Clearly, as the increase in hospital spending is slowed and cost savings are realized, the need to develop methods to detect adverse effects on quality and access is intensified.

The Commission strongly perceives its role as supporting the establishment of payment rates that will enable hospitals to continue to deliver high-quality health care. The DRG classifications and weights must be modified appropriately to reflect changes in medical practice. Similarly, the update factor must be adequate to enable hospitals to expend the resources required to maintain the appropriate amount and type of care.

The Commission believes that it would be unacceptable for quality to be assessed only in terms of maintaining past practices. Innovation and the adoption of new technologies shown to be safe

and effective must not be constrained inappropriately by PPS, for this would also constitute an erosion of quality. The Commission recognizes, however, that the resources that can be devoted to health care are finite and that changes in practice patterns must be carefully weighed against the costs of care.

The Commission will remain informed about the quality of care given under the prospective payment system. Recognizing that the Peer Review Organizations (PROs) have been given primary responsibility to monitor Medicare quality of care, the Commission will follow the PROs' progress in performing this crucial task. The Commission will also review and use the studies on quality of care being conducted by the Health Care Financing Administration, as well as studies by other government agencies and the private sector. Finally, the Commission will devote a portion of its own extramural and analytic resources to improving data bases and methods for measuring changes in quality of care and health outcomes. The Commission welcomes information from all sources dealing with the effect of PPS on quality of care.

ENCOURAGING HOSPITAL PRODUCTIVITY AND LONG-TERM COST-EFFECTIVENESS

The Commission's concern for maintaining quality under PPS is accompanied by a parallel concern for promoting productivity and long-term cost-effectiveness of the health care system. Increases in payments for hospital care can be limited while maintaining a high level of quality when productivity is improved. Productivity is improved when fewer or less costly resources are used to yield a product of given quality; the cost of the product is reduced by the cost of the resources no longer used.

PPS uses the DRGs to classify patients and define the hospital product. Hospital care is only one of many "products" which contribute to improvement in the health status of an individual. Self care, ambulatory care, and home health services are examples of other modes of care within the health care system that contribute to improved health. Thus, the Commission will be looking beyond the hospital setting in assessing and measuring productivity in the context of PPS. The policies of other payers, the effect of competing incentives, and the subsequent impact on productivity will also be considered in the Commission's analysis.

The Commission believes that cost-based reimbursement encouraged hospitals to use additional services, sometimes with inadequate consideration about whether the benefits were worth the costs. PPS provides incentives for improving productivity and cost-effectiveness of services. PPS also creates incentives to move services to other settings. If these services can be provided at lower cost and equal quality in other settings, such a move should be encouraged. Adjustments will need to be made in hospital payments to reflect the movement of services to alternative sites, however, to avoid paying for services twice—once in the hospital DRG payment and again in payment for outpatient services.

The Commission is aware that the emphasis on reducing costs may deter the adoption of new services which may initially increase costs, even though in the long-run they may improve patient care, productivity, and cost-effectiveness. The Commission will closely monitor the system and, if necessary, develop recommendations to encourage the adoption of such services.

FACILITATING INNOVATION AND APPROPRIATE TECHNOLOGICAL CHANGE

The Commission believes the Medicare prospective payment system should have an unbiased effect on technological advancement. PPS payment levels should not inhibit the development or diffusion of new technologies and practices, nor should payment levels result in their inappropriate adoption. Instead, technology and practices should be examined in light of both long- and short-term potential effects on quality and productivity.

In reviewing the potential effects of PPS on the adoption of new technologies and practices, the Commission must consider whether payment policies and amounts are sufficient to enable hospitals to adopt such services. Current PPS financial incentives encourage the adoption of cost-saving technologies. Adjustments may be necessary to encourage the adoption of more costly but quality-enhancing new technologies. The Commission also believes that adjustments may be necessary to encourage the adoption of technologies and practices that are more costly when examined in the context of a single hospital admission, but may be cost-effective when considered from a broader health care system perspective over a longer period of time.

The Commission has taken the first steps toward addressing these concerns by examining a series of options for adjustments to PPS that could help foster the appropriate adoption of new technologies. Continued analysis of these options is a high priority for the Commission. One approach is to adjust the current DRG classifications and weights to reflect changes in technology and practice patterns. In addition, the Commission has considered and will continue to explicitly consider scientific and technological advances as part of recommendations related to the update factor.

In addition, the Commission believes that the current capital pass-through may potentially distort PPS incentives by encouraging investment in capital-intensive technologies with inadequate regard to their true cost-effectiveness or alternative approaches for providing needed services. For this reason, the Commission believes that a decision should be made about payment for capital costs as soon as possible.

MAINTAINING STABILITY FOR PROVIDERS, CONSUMERS, AND OTHER PAYERS

The Commission believes that in a rapidly changing health care delivery and financing environment, its recommendations should provide as much predictability and stability as possible. The Commission has identified many problems during its deliberations, and these are described throughout this report. Equitable and workable solutions are much more difficult to identify. Moreover, as this report is submitted, a large proportion of hospitals have been paid under PPS for less than one year. Thus, the Commission is making only those recommendations it considers most important and amenable to well-informed decision-making.

The Commission's philosophy in decision-making has been to act where there is immediate need for change and to allow the new PPS to become fully mature and operational—and stable—before suggesting new approaches or significant alterations. Therefore, if several solutions were suggested for resolving a particular problem, the Commission has often chosen the direction least disruptive to the originally structured PPS—and

to the hospitals, consumers, and other payers affected by it. Similarly, if there is doubt about the need for or impact of a change, the Commission has chosen to leave the subject for future analysis and discussion, when more data, information, and experience will be available.

DECISION-MAKING BASED ON RELIABLE AND TIMELY DATA AND INFORMATION

The Commission believes that its major contribution to the maintenance and evolution of the maturing PPS is the development of recommendations grounded in quantitative data and analytic reasoning. The availability and use of accurate and timely data and information, analyzed and presented without bias as a basis for decision-making, is a critical priority of the Commission and its staff. Analytic information must, of course, be tempered with judgment and experience, but the Commission will continue to strive to fulfill a role in which its approach is always to inform itself with the best and most timely information available before making recommendations.

The Commission has examined the data systems and reviewed the information that formed the basis for development of standardized amounts, DRG weights, and adjustments in PPS. The Commission is aware of a number of deficiencies in this base. Many of these deficiencies are unavoidable during this initial stage of PPS; over time they must be corrected. The Commission will continue to place a high priority on examining existing data and, where appropriate, developing new data. The Commission believes its recommendations, as well as the future work and research agenda described in Chapter 4, clearly reflect an orientation toward decision-making which is based upon an analytic and quantitative approach, using the most timely and appropriate data available.

Chapter 3

Recommendations

Chapter 3

Recommendations

The Commission's priorities and concerns described in Chapter 2 were evident throughout its first year and are reflected in the recommendations that follow. The recommendations are in two parts, following the Commission's statutory requirements: First are recommendations concerning the fiscal year 1986 "percentage change" or update factor which determines the overall change in the PPS standardized amounts, exclusive of any other adjustments. Second are recommendations concerning adjustments to the "classifications and weighting factors" which determine relative changes in DRG payments. Discussion of these two types of recommendations is followed by a statement on the context in which these recommendations are made.

The major part of Chapter 3 consists of the Commission's 21 recommendations, each followed by a brief discussion of the rationale underlying the Commission's decisions. Details on background information, statistical analyses, and alternative options are contained in the Technical Appendixes.

The Update Factor

The statute requires the Commission to "...take into account changes in the hospital market basket..., hospital productivity, technological and scientific advances, the quality of care provided in hospitals (including the quality and skill level of professional nursing required to maintain quality care), and long-term cost-effectiveness in the provision of inpatient hospital services," in making its recommendations on the annual update factor. The Commission is required to report its recommendations to the Secretary of Health and Human Services no later than April first of each year, and "...Taking into consideration the recommendations of the Commission, the Secretary shall determine ...the percentage change... which will take into account amounts necessary for the efficient and effective delivery of medically appropriate and necessary care of high quality."

The Commission has considered both aggregate payment amounts and the distributional effects of payment decisions on beneficiaries and hospitals in the belief that these effects are as important to the maintenance of high-quality care and to the achievement of other system goals as the level of the update factor. The Commission is concerned that an update factor which may be adequate on the average may be inadequate for certain types of hospitals and the Medicare beneficiaries who depend on these hospitals. Thus, some of the Commission's recommendations address the distributional consequences of the update factor and others the determination of the level of the update factor.

The first recommendation reflects the Commission's overall judgment of the appropriate level of the update factor for fiscal year 1986. The Commission believes its responsibility under the statute is to be as specific as possible in making its recommendation on this factor. The recommendation would require estimates for the hospital market basket and for "real" case-mix change to be developed by the Secretary. The Commission is recommending a specific amount for the remaining components of the "discretionary adjustment factor" which, in addition to the market basket increase, would comprise the update factor.

The actual percentage change in the average payment per DRG for fiscal year 1986 may differ from the update factor. The update factor is applied to the standardized amounts, but the overall increase would also be affected by across-the-board adjustments to the DRG weights. The Commission proposes adjusting the DRG weights to remove the effects of any reported case-mix change that will have occurred during fiscal year 1985 so that changes in coding occurring this year would not be built into future PPS payments (Recommendation 17).

In Recommendations 2 through 9, the Commission proposes changes in the hospital market basket, the component of the update factor that re-

45-092 O - 85 - 3

flects inflation in the prices that hospitals pay for inputs. Inflation in prices of inputs, the goods and services that hospitals purchase and use in the provision of hospital care, is generally thought to be beyond the control of hospitals and therefore appropriate adjustments should be reflected in hospital payment amounts when such prices are predicted to increase from one year to the next. Detailed information pertaining to the market basket recommendations is in Technical Appendix B.

Recommendations 10 through 12 concern the discretionary adjustment factor, which is the portion of the update factor that reflects considerations other than the market basket of hospital input prices. The Commission decided that the DAF should be set to reflect goals for the attainment of productivity gains and for scientific and technological advancement. The Commission also identified a third consideration for the DAF, an allowance for "real" changes in the mix of Medicare inpatients (contrasted with changes that arise only from altered coding practices). The Commission selected a specific numerical adjustment for productivity and scientific and technological advancement in Recommendation 10 but proposes that the Secretary develop the allowance for real case-mix change in Recommendation 11. Recommendation 12 satisfies the Commission's statutory obligation to recommend an update factor for hospitals and distinct parts of hospitals excluded from PPS.

In concept, the discretionary adjustment to the update might be positive, zero, or negative depending on judgments regarding the relative importance of the components that comprise the DAF. The Commission's recommendations reflect its best collective judgment regarding a discretionary adjustment for fiscal year 1986. It should not be assumed that the Commission's recommendation in subsequent years will be for the same amount. Detailed information on the DAF is in Technical Appendix B.

Recommendations 13 through 15 address the distributional concerns expressed above. The Commission selected the definition of hospital labor market areas and disproportionate share hospitals as two problem areas of PPS deserving immediate attention in the establishment of the fiscal year 1986 payment rates. This does not imply that other problem areas are not also of great importance, but the Commission believes that the distributional consequences of these two problems are sufficiently severe, and the potential for finding workable solutions is sufficiently high, that immediate attention is warranted. Detailed information on these distributional issues is in Technical Appendix B.

Recommendation 16 pertains to the issue of rebasing the standardized amounts. The Commission goes on record in favor of rebasing, but recognizes that doing so for the fiscal year 1986 rates would be inadvisable due to the lack of suitable data. It is expected that rebasing concerns, including the identification of suitable data and methods of calculation, and the development of policy options for establishing new levels of the standardized amounts, will receive considerable attention from the Commission during the coming year.

Classifications and Weighting Factors

The Commission is required to "...consult with and make recommendations to the Secretary with respect to the need for adjustments [in classifications and weighting factors]...based on its evaluation of scientific evidence with respect to new practices, including the use of new technologies and treatment modalities." These adjustments refer to the system for "...classification of inpatient hospital discharges by diagnosis-related groups and a methodology for classifying specific hospital discharges within these groups," and to the assignment of "...an appropriate weighting factor [to each diagnosis-related group] which reflects the relative hospital resources used with respect to discharges classified within that group compared to discharges classified within other groups." The Secretary is required to "...adjust the classifications and weighting factors...for discharges in fiscal year 1986 and at least every four fiscal years thereafter, to reflect changes in treatment patterns, technology, and other factors which may change the relative use of hospital resources." The Congress has directed the Commission to make recommendations regarding the DRGs ". . . for such groups to reflect appropriate differences

in resource consumption in delivering safe, efficacious, and cost-effective care."

Recommendation 17 concerns recalibration of the DRG weights with a data base that is newer, more complete, and more accurate than the 1981 data on which the current DRG weights are based. The Commission's recommendation reflects its belief that, because of potential inaccuracies in the data originally used to establish the DRG weights and changes in hospital practice patterns since 1981, a full recalibration for the 1986 rates is advisable.

Two important features of the Commission's treatment of recalibration are, first, that it includes a recommendation for normalizing DRG weights so that the average weight of all PPS discharges is the same as it was at the beginning of fiscal year 1985 and, second, that it includes a recommendation to adjust DRG weights across the board for any change in reported case mix occurring during fiscal year 1985. The reduction in DRG weights implied by this adjustment would be offset, in part, by the positive allowance for real case-mix change described above as part of the recommended update factor.

This recommendation does not imply, nor should it be inferred, that the Commission will propose a recalibration or normalization next year or any specific subsequent year, nor does it suggest that the Commission will recommend the same type of data or approach for recalibration in the future. Further information on recalibration and related adjustments is in Technical Appendix C.

Recommendations 18 through 20 pertain to specific weighting, classification, and assignment issues concerning three procedures: pacemaker implantation, cataract extraction and intraocular lens implantation, and percutaneous transluminal coronary angioplasty. Two additional procedures, bone marrow transplantation and treatment of infective endocarditis, were determined not to require in-depth analysis at this time, as indicated in Recommendation 21. Detailed information concerning pacemaker implantation (Recommendation 18) is in Technical Appendix D; information pertaining to Recommendations 19 through 21 is in Technical Appendix C.

The Commission may make additional recommendations concerning these issues in the future, if new information becomes available. Furthermore, the majority of DRG weighting, classification, and assignment issues undertaken for review by the Commission in its first year require additional data and analysis. A summary of the issues currently under review is provided in Chapter 4. The Commission will supplement this report with additional recommendations as appropriate.

The Context for These Recommendations

The Commission firmly believes that adoption of these recommendations will result in substantial improvements in PPS and will maintain the essentially positive experience that implementation of PPS has achieved to date. Nevertheless, because these recommendations necessarily are made in a rapidly changing health care environment, both in Federal health policy and in the private health sector, the Commission is concerned that the context in which its decisions were made be recognized. Changes in this context may lead the Commission to reconsider some of its recommendations. Such changes will also influence the Commission's choices of issues to address in future reports.

The Commission's recommendations are made under the assumption that current law and its interpretation will remain in force during fiscal year 1986. The Commission decided early in its deliberations that it would not attempt to predict policy changes arising from actions of the Executive Branch or the Congress. Nevertheless, if important policy changes occur, the Commission may wish to reconsider some of its recommendations.

The Commission also recognizes that its recommendations are made at a time when hospitals are in either the first or second year of experience with PPS and only a fraction of their payments are based on Federal DRG payment rates. During its deliberations, the Commission has learned about several demonstrated and potential problems of PPS which, if not corrected, may result in unwarranted hardships for some hospitals and Medicare beneficiaries. The Commission has made specific recommendations con-

cerning two of these problem areas and has committed its resources to the study of several others.

The Commission believes that, as the transition to a fully implemented prospective payment system proceeds, serious problems must be identified and corrected. The Commission considered the possibility of specifically proposing a delay in the transition to allow additional time for problem solving but did not do so because it did not wish to interfere with the momentum of PPS. Nevertheless, the Commission has asked its staff to continue the analysis of the effects of the transition. If problems exacerbated by the transition are sufficiently severe and not correctable by other policy measures, a recommendation for delay in the transition will be considered. Further information on the transition issue is in Technical Appendix B.

Finally, the Commission does not wish to imply, nor should it be inferred, that issues not addressed in its 21 recomendations are unimportant. The Commission recognizes that there are many other important issues deserving serious attention and has already scheduled several of these issues for analysis in coming months. Chapter 4 presents a summary of these issues.

RECOMMENDATIONS REGARDING THE UPDATE FACTOR

Recommendation 1: Amount of the Update Factor

For fiscal year 1986, the standardized amounts should be updated by the projected increase in the hospital market basket, minus one percentage point, plus an allowance for the estimated increase in real case-mix complexity during fiscal year 1985. The negative one percentage point is a combined adjustment of a positive allowance for scientific and technological advancement and a negative allowance for productivity improvement and hospital product change.

This recommendation reflects the Commission's collective judgment of the appropriate increase in the level of payment per Medicare discharge under PPS, assuming that the Commission's other concerns regarding the market basket component of the update factor, the DRG weighting factors, and the distribution of payments across PPS hospitals are also addressed in the fiscal year 1986 payment rates. Further, this recommendation is based on the premise that no net reductions or increases in average per case payments to hospitals will be effected through measures other than the update factor, such as reducing the indirect teaching adjustment, incorporating capital payment under PPS at a budget-saving level, adjusting for coding changes occurring before fiscal year 1985, or any other change in total payments per discharge under PPS.

The rationale for this recommendation is provided in the discussions accompanying Recommendations 2 through 16. The Secretary should estimate the projected increase in the hospital market basket and the increase in real case-mix complexity using the most current data available at the time the payment rates are determined. These estimates, combined with the one percentage point net reduction for scientific and technological advancement, productivity improvement, and hospital product change, would determine the increase in average payments per discharge under PPS for fiscal year 1986.

The Hospital Market Basket

Recommendation 2: The Number of Market Baskets

For fiscal year 1986, a single market basket should be continued for those hospitals under PPS. The Commission will undertake a study to determine the appropriateness of developing market basket measures that reflect variation in economic factors across hospitals. The use of multiple market baskets by region and classes of hospitals within regions will be examined. If the analysis indicates that multiple market baskets are appropriate, the study will also include an assessment of the data required for implementation.

The effects of inflation on a hospital or group of hospitals can differ from those measured by a single national hospital market basket for a number of reasons. First, increases in the prices of some items—most notably wages—vary across

regions. Second, regional differences in price levels may affect the market basket weights, which represent the share of total hospital expenditures going to a component. Market basket weights may also differ if hospitals purchase different amounts of an input than the average (e.g., hospitals in colder climates may need to purchase more fuel). Finally, a single national market basket may not be an appropriate measure of inflation for hospitals that use a different mix of inputs than the average because they provide different services.

Since past analysis has shown that differences in hospital input price increases across regions and certain hospital types are not statistically significant, the Commission has decided not to recommend that separate market baskets be developed at this time. But because the analysis is limited, further study should be undertaken to evaluate the extent to which prospective payment rates might be affected if variation were allowed in market basket weights, or regional inflation rates. Examination of the possible overlap between the adjustment for area wage differences already included in PPS payments and the development of regional market baskets should be included. Future consideration of multiple market baskets will require a trade-off between the benefits of improvements in equity and the costs of increasing the complexity of the payment system.

Recommendation 3: Market Basket for Psychiatric, Rehabilitation, and Long-Term Care Hospitals

Separate market basket weights should be used for the group of psychiatric, rehabilitation, and long-term care hospitals and related distinct-part units that are exempt from PPS, but subject to the TEFRA rate of increase limitation. Separate market basket weights need not be developed for children's hospitals.

Due to the nature of the services they provide, the labor share of total expenses in psychiatric, rehabilitation, and long-term care hospitals is substantially higher than in other hospitals. To best reflect the effects of inflation, the market basket weights used to set the target rate of increase for these hospitals should take into account this differing use of inputs, and any others that may exist. Although children's hospitals are also exempt from PPS, the current market basket weights are more appropriate for this group, since the labor share of total expenses in these hospitals is very close to the overall average on which the current weights are based.

Recommendation 4: Market Basket Wage Component—Occupational Groups

The wage component of the market basket should be split into three categories, each with separate weights: Managers and Administrators, Professionals and Technicians, and Other Hospital Workers. Changes in wages for these categories should be measured as follows:

- **Managers and Administrators: the Employment Cost Index (ECI) for Managers and Administrators.**
- **Professionals and Technicians: a 50-50 blend of the Average Hourly Earnings (AHE) for the hospital industry and the ECI for Professionals and Technicians.**
- **Other Hospital Workers: a 50-50 blend of the AHE for the hospital industry and the ECI for all private industry.**

(The discussion for all three of the Commission's recommendations regarding the treatment of wages in the hospital market basket follows Recommendation 6.)

Recommendation 5: Employment Cost Index Feasibility Study

For the long run, the Secretary should work with the Bureau of Labor Statistics to study the advantages and feasibility of developing an Employment Cost Index for the hospital industry that includes both public and private hospitals and covers increases in both wages and fringe benefits.

Recommendation 6: Study Effects of Changes in the Minimum Wage Law on Hospital Workers.

The Commission plans to study the extent to which hospital workers would be affected by changes in the Federal minimum wage law. The intent of the study is to detect whether, under PPS, workers who earn more than the minimum wage are differentially affected by statutory increases in the minimum wage compared with

workers in other industries. If a differential effect is found to exist, the Commission will consider requesting the Secretary to take appropriate action.

Wages are the largest single component of the hospital market basket, accounting for nearly 60 percent of hospital expenses. Currently, HCFA measures changes in all hospital wages by the AHE in the hospital industry, a data series collected by the Bureau of Labor Statistics.

Recommendations 4 through 6 address two major problems with the current treatment of wages in the market basket. First, the AHE series does not separate changes in inflation from changes in the skill mix of workers in the hospital industry. As a result, some portion of the growth in the series over time has probably been due to shifts in the type and use of hospital employees (e.g., substitution of RNs for LPNs).

Creating separate wage categories by occupational groups as the Commission recommends would take account of broad changes in skill mix among managers, professionals, and other hospital workers. Weights for the recommended categories could be developed using 1980 Census data. In addition, differences in wage growth among these groups would also be addressed. In particular, a separate measure of wage change would be included for managers and administrators, who are excluded from the AHE series currently used.

The second major problem addressed by the recommendations is that use of a price change measure specific to the hospital industry allows hospital behavior—including the response to PPS incentives—to influence the increase in the market basket. Since the AHE series has risen in the past at a relatively high rate compared with other industries, there has been concern that exclusive use of a hospital industry series would allow hospitals to increase wages faster than other industries even when a differential was not warranted. More recently, however, growth in the AHE hospital series has slowed more rapidly relative to wages in other industries. If hospital wage growth is slowed in response to PPS incentives for cost containment, the market basket forecasts will reflect this, and hospital workers could be limited to wage increases lower than that of other workers.

Blending the AHE with the ECI, which includes workers outside the hospital industry, would mitigate these effects, yet still partially reflect any unique circumstances in the labor markets for hospital employees. To the extent that the hospital labor market is unique, exclusive use of the ECI or other broader industry measures might fail to adequately portray the economic forces beyond the control of hospitals.

For the long run, an ECI should be developed for the hospital industry. Although it would not be used to replace the ECI measures recommended above, a hospital industry ECI might be preferred to the AHE series since the ECI measures skill-mix differences and hourly wages directly. If developed, this series could be used to measure changes in hospital industry wages and may or may not be used in the market basket.

Recommendation 7: Correction of Market Basket Forecast Errors

The update factor should include a correction for substantial errors made in the previous year's forecast of changes in the external price measures used in the hospital market basket. In the judgment of the Commission, substantial errors are those that equal or exceed 0.25 percentage points (or, when rounded in the published forecasts, 0.3 percentage points). The Commission will undertake a study to determine the extent to which differences between forecasted and actual increases in the internal price change measures are due to factors beyond the hospitals' control. Substantial errors determined after study to be due to factors beyond the hospitals' control should be corrected in the update factor.

(The discussion for both the Commission's recommendations regarding correction of market basket forecast errors follows Recommendation 8.)

Recommendation 8: Statutory Change for Forecast Error Correction

The Secretary has determined that she does not have the statutory authority to correct for market basket forecast errors. Therefore, the Secretary should seek statutory change to provide explicitly that the update factor include a correction for errors in forecasting the market basket beginning in fiscal year 1986.

Regardless of the method of forecasting inflation in the hospital market basket, errors are bound to occur that might have substantial financial consequences for hospitals or the Federal government. A correction need not be made, however, when the forecast error is small, since both the Federal government and hospitals should be able to manage within a margin of error. The prospective nature of payment rates is not compromised when the correction is made by adjusting the increase in the following year's rates.

The recommendation, however, distinguishes between internal and external price change measures (or price proxies). External proxies are those that measure price changes that extend beyond the hospital industry. For example, inflation in food prices is measured in the hospital market basket by a combination of food components of the Consumer Price Index and the Producer Price Index. Changes in these measures are beyond the control of the hospital industry, and therefore differences between actual and forecasted changes in the price proxy can be attributed to forecast error alone. Alternatively, internal proxies are those that apply solely to the hospital industry (e.g., wages as measured by the AHE series for the hospital industry). In this case, behavior of the hospital industry affects the actual increase in the price proxy. If the difference between forecasted and actual increases in internal proxies were automatically adjusted, hospital incentives to limit price increases in those categories would be reduced. Until further study can distinguish between the effects of forecast error and hospital behavior, no correction should be made for the differences between forecasted and actual changes in internal price proxies.

The Secretary has interpreted the statute to prohibit an adjustment for correcting market basket forecast errors. Because of this, the statute should be clarified by the Congress to explicitly require correction of forecast errors in the update factor.

Recommendation 9: Rebasing of Market Basket Weights

Market basket weights should be rebased at least every five years. Rebasing should be performed more frequently if significant changes in the weights occur. In addition, the market basket weights will need to be rebased if payment for capital or direct medical education is included in the PPS rates.

The current HCFA staff plan to update market basket weights every five years seems reasonable, but more frequent rebasing might be necessary if hospitals change—perhaps in response to the PPS—the mix of inputs they use to provide services. In addition, if policy changes are made to include capital or direct medical education costs in the overall PPS rates, the market basket weights will need to be recalculated.

Discretionary Adjustment Factor

Recommendation 10: Allowance for Productivity and Scientific and Technological Advancement Goals

For the fiscal year 1986 payment rates, the allowance in the discretionary adjustment factor for scientific and technological advancement, productivity improvement, and hospital product change should be set at minus one percentage point.

The discretionary adjustment factor (DAF) is based on a policy decision regarding the rate at which the Medicare standardized amount should change beyond increases in the hospital market basket. For the fiscal year 1986, the Commission has included in the DAF three broad allowances: one for technological and scientific advances; one for productivity; and one for changes in the hospital product. An additional allowance for real case-mix change should also be added by the Secretary. In future years, the Commission may choose to expand the elements in the DAF to reflect other factors.

This recommendation addresses the quantitative allowance for productivity, product change, and technological and scientific advances. The fiscal year 1986 adjustment for real case-mix change is addressed in Recommendation 11 and its accompanying discussion.

The update factor should encourage hospitals to seek productivity gains while, at the same time, ensure that sufficient funds are available to finance the adoption of quality-enhancing technologies after balancing the medical benefits against the

costs of such technologies. Together, these allowances in the DAF constitute a judgment about how much of the desired growth in technology can be funded out of productivity gains or other resources already in the payment system.

In developing quantitative allowances for this portion of the DAF, the Commission was required to make implicit judgments for which there is little precedence. Moreover, the technical methods and data available upon which to base these judgments yield imprecise estimates.

The Commission's recommendation for the DAF reflects the following broad guidelines:

Adjustments	*Percentage Allowance*
Scientific And Technological Advances	+1.5 to +2.0
Hospital Productivity	−1.5 to −2.0
Changes In The Hospital Product	−1.0
Net Adjustment (Before Inclusion Of The Allowance For Real Case-Mix Change)	−1.0

By recommending a small negative aggregate allowance for these elements of the DAF in fiscal year 1986, the Commission does not imply that there should be no allowance for technological growth. Rather, it is reasonable to expect that, at least for one year, any requirements for new technology can be funded from potential gains in productivity and changes in the types of services produced in an inpatient setting. Moreover, the DAF allowance is not the only method to finance technology adoption. In particular, the capital costs associated with new technologies are currently reimbursed on a retrospective cost basis under PPS.

The adjustment for technology reflects the Commission's view that the hospital industry will not continue to experience the same rate of growth as in the past decade. Future expenditures should reflect a balance between long-term growth in the hospital industry and growth in the remainder of the economy.

In the hospital industry, productivity is difficult to measure due to problems in defining an appropriate output or product. In the simplest terms, the hospital product under PPS is a discharge, as classified and labeled by the DRG system. The Medicare PPS provides significant incentives to change the nature of this product, including incentives to shift services from an inpatient to an outpatient setting or to move patients out of the hospital more quickly. As a result, the output previously produced during an inpatient stay can be produced by using a mix of inpatient and outpatient services.

It is difficult to separate changes in the hospital product from changes in productivity. The potential for productivity gains was examined from a variety of perspectives. These included analyses of staffing patterns and changes in average length of stay as well as the development of a specific productivity target for the industry. Based on these analyses, the Commission adopted an overall productivity guideline between minus 1.5 and minus 2.0 percent.

Changes in the hospital product can result from a shift of services from inpatient to other care settings. This shift would reduce the cost to the hospital of DRG production without necessarily achieving any reduction in total costs. Under these circumstances, the Medicare program could be overpaying for services since the cost base for the DRG rates includes the costs of services that have subsequently been removed from the inpatient setting.

Quantitative evidence regarding changes in the hospital product is limited to changes in average length of stay. Changes in length of stay, however, reflect both changes in productivity and changes in the hospital product. The most recent data available from the American Hospital Association's Panel Survey indicate a 7.8 percent decline in length of stay for patients 65 years of age and older in the first nine months of 1984 compared with the same period in 1983. Although it cannot be assumed that all of this change is related to PPS, the declines in length of stay are consistent with the incentives established by the Federal cost containment initiatives under TEFRA and PPS.

While the shorter lengths of stay cannot be directly or immediately translated into a 7.8 percent reduction in costs, the Commission believes that for fiscal year 1986 such a decline would result in at least a 3.7 percent reduction in costs due to productivity gains and a 1 percent reduction due to changes in the hospital product. In order

to continue sharing gains from improved efficiency, approximately half of the productivity cost savings should be retained by the hospital industry. In addition to providing support for investment in new technology and services, these funds would be available to develop hospital programs to assist patients who may have difficulty gaining access to care, and to help displaced hospital employees locate other employment or vocational retraining.

The recommendation for the DAF is based on the assumption that the Commission's other recommendations in this report are implemented. Taken together, these recommendations are intended to ensure that the Medicare program continues to pay a reasonable price for inpatient hospital services. The Commission is concerned that, while an update factor significantly less than the historical amounts is adequate on the average, it may be inadequate for certain types of hospitals and the Medicare beneficiaries they serve. This concern is evidenced in the Commission's recommendations regarding disproportionate share hospitals and hospital labor market areas (Recommendations 13 through 15). Implementation of these recommendations will materially affect the maintenance of equity under increasingly constrained PPS expenditures.

Further, the Commission made this recommendation under the explicit assumption that no adjustments affecting the level of average PPS payments per case would be made other than those it recommended.

The Commission believes the recommended level of the DAF adequately meets the costs of treating Medicare patients. It is not appropriate or expected that hospitals use other sources of revenue to absorb the costs of treating Medicare patients (e.g., raising charges to other payers or using reserve funds). To expect other sources to fund Medicare patients is an inappropriate policy that eventually would compromise the access of Medicare beneficiaries to quality care.

Recommendation 11: Adjustment for Case-Mix Change

Prospective payments to individual hospitals and in the aggregate should reflect real changes in case mix. Changes in reported case mix that are unrelated to actual differences in the types of patients treated should not be built into future PPS payments.

Over time, changes in the distribution of patients across DRGs would be expected to increase the average PPS discharge weight for two reasons. First, real changes in the types of Medicare admissions may occur due to shifts in patterns of service delivery, the aging of the population, or other factors. In particular, the mix of hospital inpatients across DRGs may become more complex as patients with less complicated diagnoses are more often treated on an ambulatory basis. For the same reason, the mix of patients within DRGs might also become more complex, although this would not be reflected in the average payment per discharge. Prospective payment should include compensation for these types of case-mix change, which are due to changes in patient characteristics.

Second, the average PPS discharge weight might increase as hospitals code a higher proportion of patients into more complex DRGs. This would be expected particularly in the initial years of PPS, since hospitals now have incentive to improve the completeness and accuracy of the diagnostic information reported on Medicare bills. This type of case-mix change should not be built into PPS payment amounts, because changes in coding practices do not reflect an increase in the resources required to treat patients.

Since PPS payments automatically reflect all changes in reported case mix as they occur, an adjustment is necessary periodically to pay only for real case-mix change. The adjustment should also include an allowance for the overall increasing complexity in the mix of patients within DRGs.

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For fiscal year 1986, the Commission recommends that, through recalibration, normalization, and adjustment of the DRG weights as described in Recommendation 17, the effects of case-mix change occurring in fiscal year 1985 should be removed from the DRG weights so that changes in coding would not be built into future PPS payments. Along with this, an adjustment for case-mix change occurring during fiscal year 1985 estimated to be caused by real shifts in the mix of patients should be included in the update factor. If adopted, the combined effect of these recommendations would be to allow PPS per-discharge payments to rise as a result of increasing complexity in the Medicare cases hospitals treat, if such increases occur, but not as a result of past changes in coding.

In determining the adjustment for real case-mix change, the Secretary should analyze the most recent data available when the fiscal year 1986 payment rates are set. The Commission will review the findings of this analysis when they are available, and may recommend a specific adjustment at that time.

Recommendation 12: Update Factor for Exempt Hospitals

In addition to the projected increase in the market basket, hospitals and hospital distinct-part units exempt from PPS should receive a minus one percentage point adjustment in their fiscal year 1986 update factor for productivity improvement and scientific and technological advancement.

In addition to a full allowance for inflation, the Commission has emphasized that the update factor should incorporate policy goals for productivity and scientific and technological advancement. These concepts are as difficult to quantify with precision for exempt hospitals and distinct part units as they are for hospitals included in PPS. Nevertheless, the Commission believes that the update factor for both sets of hospitals should include an adjustment for these elements.

The Commission recognizes that differences exist between PPS hospitals and exempt hospitals and units, as illustrated in the recommendation for different market basket weights related to different mixes of inputs. It is possible that these hospitals differ from PPS hospitals in other ways that would suggest differing allowances for productivity and scientific and technological advancement. Data are not currently available, however, to substantiate such differences.

Moreover, unlike PPS hospitals, exempt hospitals currently are not paid on a case-mix adjusted basis, and would not be subject to an adjustment for observed coding change in the recalibration process. Therefore, the Commission recommends that a minus one percentage point adjustment be adopted for exempt hospitals, with no additional adjustments for case-mix change. A separate update factor for exempt hospitals and units may be considered in the future.

Studies are being considered or conducted to gather and evaluate data specific to exempt hospitals to determine whether they can be phased into PPS, or if their specific products and processes cannot be fairly dealt with under PPS. Information from these studies will provide guidance upon which to base recommendations in future years regarding the appropriateness of a separate adjustment for different kinds of hospitals.

Hospital Labor Market Areas—Area Wage Index

Recommendation 13: Improvement of Labor Market Area Definitions

In order to better reflect hospital labor markets, the Secretary should improve, as soon as possible, the current definition of a hospital labor market area used to adjust PPS rates for area wage differences, taking into account variations in wages paid in the inner city compared with suburban areas within a metropolitan area, and variations paid in different rural locations within a state. Implementation of this recommendation should not result in any change in aggregate payments.

The current wage index used to adjust payments for inter-area wage differences does not distinguish separate labor markets within Metropolitan Statistical Areas (MSAs). This inadequacy

raises serious equity concerns. Several studies have shown that there is substantial variation in the wages paid in inner city as compared with suburban areas within the same MSA. Similar concern has been expressed regarding rural areas within a state. If PPS payments are to adjust for actual variations in area wage levels, the differences in hospital labor markets need to be reflected in the application of the area wage index.

The greatest difficulty faced in implementing the Commission's recommendation will be drawing the boundaries delineating hospital labor market areas. This is in part a problem generic to defining any labor market. The appropriate boundary definition is highly dependent on how the wage index is to be used. For the purposes of PPS, the boundaries for a hospital labor market area should be drawn so that the impact of the behavior of any single hospital on the wage index used to adjust that hospital's payment would be negligible. In small MSAs, there may be too few hospitals to designate more refined market areas. Thus, while it might be desirable to develop separate core and ring designations for each MSA and more refined designations for rural areas within states, it may not be possible to do so in every area.

The Commission clearly recognizes that there are substantial difficulties in developing new area wage indexes based on revised market areas. Nevertheless, the Commission believes the payment inequities engendered by the current system are sufficiently severe to warrant immediate correction. HCFA has better data on hospital labor markets than ever before, and the Secretary plans to revise the index for fiscal year 1986. To ensure the stability and predictability of PPS rates for hospitals in the future, it would be highly desirable to revise the wage index only once during this period. Thus, the Commission urges the Secretary to implement this recommendation in conjunction with any other revisions planned for the area wage index.

Disproportionate Share Hospitals

Recommendation 14: Disproportionate Share Adjustment for Fiscal Year 1986

The Secretary should develop a methodology for adjusting PPS rates for disproportionate share hospitals and implement the adjustment in fiscal year 1986. The adjustment should be implemented so that it does not change aggregate payments.

The Congress has clearly stated its concern that specific adjustments should be made for hospitals incurring higher Medicare costs per case associated with treating a high proportion of low income or Medicare Part A patients if such costs are not already accounted for in the PPS methodology.

According to both the House Ways and Means Committee and the Senate Finance Committee Reports that accompanied the Social Security Amendments, the disproportionate share provision reflected congressional concern that "public and other hospitals that serve a large number of low income and Part A Medicare beneficiaries" may serve patients "more severely ill than average and that the DRG payment system may not adequately take into account such factors."

The Commission, having reviewed a number of studies, is convinced that hospitals serving a high volume of low income patients (as measured by a variety of definitions) do incur higher Medicare costs per case. For example, these studies (including those conducted by HCFA) indicate that there is a consistent and significant positive relationship between Medicaid volume and Medicare costs per case.

The precise reasons for these higher costs are unknown. Based on its studies, however, the Commission is also convinced that these higher costs per case are substantially due to factors beyond the control of these hospitals. Therefore,

the Commission believes that a specific adjustment for these hospitals should be made in the fiscal year 1986 payment rates.

Development of a specific adjustment will require a reasonable definition of "disproportionate share." (Definitional problems are discussed under Recommendation 15.)

To develop an appropriate adjustment, it will be necessary to separate the effects of serving a low income population from other factors already reflected in the current PPS rates. The indirect teaching adjustment, for example, may adequately compensate some hospitals for the additional costs of serving a disproportionate share of low income patients over and above the indirect costs of having interns and residents on the premises. If the indirect teaching adjustment were reduced on the grounds that the indirect costs of teaching are actually lower than the adjustment provides for, this would have the effect of undercompensating some teaching hospitals which serve a disproportionate share of low income patients.

Similarly, part—but not all—of the undercompensation of some disproportionate share hospitals is attributable to the current methodology used to define labor market areas. If this problem were ameliorated, as the Commission recommends in Recommendation 13, it would reduce but not eliminate the extent of this undercompensation. In addition, to the extent that disproportionate share hospitals incur higher costs related to a mix of patients more severely ill than average, improvements in case mix measurement may subsequently alter the disproportionate share adjustment necessary for these hospitals.

Because of these interactions, calculation of the disproportionate share adjustment should take into account the calculation of other adjustments in order to achieve the appropriate levels and distributions of payments to all hospitals.

The Commission recognizes that determining the magnitude of a disproportionate share adjustment will not be a simple task. It will require careful analysis of the interactions among hospital characteristics to ensure that hospitals are not over- or undercompensated by the mix of adjustments chosen. Given the work already conducted by HCFA on this issue, the Commission believes that a reasonable adjustment is feasible for incorporation in the fiscal year 1986 rates.

In the development of a disproportionate share adjustment, the Secretary should explore the feasibility of a graduated schedule of adjustments (with perhaps a minimum threshold, below which no adjustment would be made), rather than a single adjustment for hospitals that are above a single cutoff point. Such a schedule is likely to be far more equitable than a single adjustment which may provide windfall gains for those just above the cutoff point and unfair losses to those just below that point. California, for example, uses a graduated schedule as a part of its implementation of the Medicaid disproportionate share provision for its noncontracting hospitals.

Recommendation 15: Definition of Disproportionate Share Hospitals

The Secretary should complete the development of a definition of disproportionate share hospitals in ample time to include adjustments for these hospitals in the fiscal year 1986 PPS payment rates. The Secretary should consider broader definitions of low income than simply the percentage of patients who are Medicaid recipients and should determine whether the share of Medicare Part A patients should be excluded from the definition.

No adjustment to PPS rates for disproportionate share hospitals can be specified and implemented until a reasonable definition of disproportionate share is developed. The Deficit Reduction Act of 1984 requires the Secretary to develop and publish a definition of a disproportionate share hospital and to provide Congress with a list of hospitals which meet this definition. As of late March 1985, the results of the Secretary's study had not been made public.

The Commission clearly recognizes the difficulty in defining disproportionate share hospitals. Problems arise in both the identification of a proxy measure for low income patients and in the relevance of including Medicare Part A patients in that definition.

The majority of studies to date indicate that the volume of Medicaid patients is positively associated with Medicare costs per case. Thus, Medicaid volume has been suggested as a reasonable proxy for low income. Medicaid eligibility criteria, however, vary considerably among the states and regions of the country. Consequently, the proportion of Medicaid patients may not be a consistent measure of low income patients. If the percent of Medicaid patients were used as a proxy measure of low income, then the Commission would urge that this measure be adjusted to reflect variations in state Medicaid eligibility requirements and variations in income levels across states.

The relevance of including Medicare patients in the definition of disproportionate share is questionable if the disproportionate share adjustment is to reflect higher Medicare costs per case associated with serving a given population. First, Medicare patients tend to be evenly distributed among types of hospitals. Second, almost all the studies to date have found no evidence that a higher proportion of Medicare patients contributes to higher costs per case when PPS variables are controlled. A recent American Hospital Association study, however, brings this conclusion into question.

According to this study, higher Medicare costs per case are associated with hospitals having a higher precentage of Medicare revenues or patient days. The findings for Medicare admissions, however, were inconsistent for the two years studied (1980 and 1981). In 1980, the study found that the greater the proportion of a hospital's admissions which were Medicare, the higher the Medicare costs per case. In 1981, a higher proportion of Medicare admissions was not found to be significantly associated with higher Medicare costs per case.

The Commission concludes that a number of key issues concerning the definition of disproportionate share hospital have not been settled. Therefore, the Commission urges the Secretary to perform the necessary analyses to resolve these issues as expeditiously as possible so that an equitable adjustment for disproportionate share hospitals can be developed.

Rebasing the Standardized Amounts

Recommendation 16:
Rebasing the Standardized Amounts

The standardized amounts used to determine hospital payments under PPS should be recalculated using cost data that reflect hospital behavior under PPS. The results of such a recalculation, with appropriate modifications, could be used to rebase the standardized amounts. Although recent cost data are not available to recalculate the standardized amounts for the fiscal year 1986 payment rates, the Secretary should implement a process for timely collection of the cost data necessary for future recalculation. The Commission will later consider more specific recommendations regarding the timing, data sources, and process for rebasing the standardized amounts.

Periodic rebasing of the PPS standardized amounts—that is, use of more recent data to recalculate the average cost per case that, after adjustment and updating, is multiplied by the DRG weight to determine payment for a Medicare discharge—would maintain a relationship between hospital costs and PPS payments that might be eroded by indefinite use of an update factor alone. Under rebasing, payment rates would automatically reflect changes in length of stay, shifts to outpatient services, and the number and types of ancillary services and technologies used to treat hospital inpatients. Taking these changes into account using an update factor alone would require estimating their effects with very limited information.

Rebasing the fiscal year 1986 standardized amounts is not recommended since the most recent cost data available (from fiscal year 1982) are only one year more recent than the data used to set the current rates. Therefore, these data would not yet reflect hospital response to the cost-reducing incentives present under PPS or even under the TEFRA reimbursement limits.

Rebasing requires making specific decisions regarding the data sources used, possible adjustments—including sharing of savings between pro-

viders and the program—and the frequency and timing of rebasing. The Commission will consider these issues in the future.

Data Used to Rebase the Standardized Amounts. Timing of at least the first rebasing of the standardized amounts would be affected by the availability of data. Currently, the standardized amounts are calculated based on data included in the 1981 Medicare cost reports. Because of the lag in submitting and reviewing the cost reports, data from settled cost reports from the first year of PPS will probably not be available until 1987. Rebasing might be possible before then (perhaps for the fiscal year 1987 payment rates) by using cost reports as submitted or final reports from a sample of hospitals. The extent to which using data from a representative sample of hospitals might be a long-run way to implement periodic rebasing, yet still reduce the burden of cost reporting on the hospital industry, should also be considered.

Possible Adjustment to the Rebasing Calculation. Rather than simply using the outcome of a recalculation of the standardized amounts, rebasing could involve recalculating the standardized amounts, and then applying an adjustment. In this way, the effects of rebasing on the payment rates—and ultimately on hospital revenue—could be limited and made more predictable. For example, the change in the standardized amounts resulting from rebasing could be limited to no more than 10 percent of the previous amount. The recalculated standardized amounts might be lower, reflecting hospital response to the cost-reducing incentives of PPS. On the other hand, the recalculated amounts might be higher, due to the restrictions of the budget neutrality provision in effect for the first two years of PPS or to stringent update factors after that.

Frequency and Timing of Rebasing. Rebasing could be done annually, on a predetermined multiyear cycle (such as every four years) or on an ad-hoc basis. Annual rebasing would keep the relationship between payment rates and hospital costs as current as possible. It might be, however, that system changes would not occur rapidly enough to require annual repetition of the rebasing process. A carefully developed update factor might successfully predict trends in the hospital product and productivity, with rebasing necessary only over a longer period or when more dramatic changes occur. In addition, an argument often made against annual rebasing is that hospitals should share in productivity gains for some period before the gains are reduced by lower prices. Economic theory predicts that, even in a competitive market, there is lag time between the achievement of productivity gains and the market's automatic downward adjustment in prices. On the other hand, if costs were rising faster than payment amounts, more frequent rebasing would finance the increases with a short lag.

Short-run decisions about the frequency of rebasing could be made differently than long-run decisions. It may be reasonable to assume, for example, that the greatest changes in hospital behavior will occur in the initial years of PPS and that rebasing should be done more frequently in the early years than over the longer run.

Along with frequency, the timing of rebasing is also an issue to be considered. One choice would be to rebase the standardized amounts whenever the DRG weights are recalculated. In this way, the whole system would be adjusted at once. Alternatively, rebasing might be done on a different schedule than recalibration so that system changes occur more gradually. In addition, rebasing would be appropriate when other changes, such as the addition of capital to the PPS rates, are made in the system.

RECOMMENDATIONS REGARDING DRG CLASSIFICATIONS AND RELATIVE WEIGHTING FACTORS

Recommendation 17:
Recalibrating the DRG Weights

For fiscal year 1986, all DRG weights should be recalibrated using the 1984 PATBILL data set. The newly recalibrated weights should be:

(1) Normalized so that the average case weight is the same as it was at the beginning of fiscal year 1985, thereby incorporating DRG weight adjustments made before the start of fiscal year 1985

(2) Adjusted for any demonstrable changes in reported case mix occurring during fiscal year 1985

Recalibration of the DRG weights is one way to adjust PPS payments periodically to reflect changes in hospital technologies and practice patterns that alter the relative resources used across DRGs to treat Medicare patients. Recalibration, which adjusts *all* DRG weights, should be contrasted with reweighting, which adjusts only certain DRG weights.

The original approach used to create the DRG weights (i.e., combining charge data from Medicare patient bills with cost information from the hospital's Medicare Cost Report) would probably be preferred for recalibration this year as well, were it not for data lags. The most recent complete data base available for a 1986 recalibration using this methodology is the 1982 MEDPAR file of patient bill records and cost report data for the 1982 hospital accounting year—the year before TEFRA was implemented. These data are only one year more recent than the 1981 data used to establish the current weights, and would not reflect hospital response to cost-control incentives under PPS or even under TEFRA.

Rather than continuing to use older cost data or delaying recalibration until more recent cost data are available, the Commission recommends that recalibration be carried out for fiscal year 1986 using charge data from the Medicare PATBILL file for fiscal year 1984. This recommendation does not imply, nor should it be inferred, that the Commission will continue to recommend recalibration with charge data alone in the future.

DRG weights based on PATBILL data would offer two important advantages over the current DRG weights. First, the PATBILL file contains the most recent data available, including discharges for the first year of PPS. Second, the PATBILL file includes much more detailed diagnostic information than the 1981 MEDPAR file.

A possible disadvantage of using the PATBILL file alone is that it contains data on hospital charges, but not costs. Costs are generally thought to be more reflective of real resource use than charges, since charges can be distorted by hospitals' patterns of subsidization and revenue generation.

The Commission's analysis of the 1981 MEDPAR and Medicare Cost Report data indicates, however, that there is very little difference between weights constructed using the original methodology and weights constructed using charge data alone. Of the 358 DRGs for which weights can be constructed using Medicare data alone, 327 DRGs (representing about 96 percent of discharges) have a weight difference of only between zero and 5 percent.

The Commission also recommends that, after the DRG weights are recalibrated, the new weights should be normalized so that the average weight of all PPS discharges is the same as it was at the be-

ginning of fiscal year 1985. By normalizing in this way, the recalibration would affect only the distribution of payments across DRGs. It would not affect the overall average payment per discharge. A further adjustment to the weights should also be made for any demonstrable change in the average weight of a PPS discharge during fiscal year 1985. Such changes in reported case-mix could be estimated using the most recent fiscal year 1985 patient billing data available when the payment rates are set. If these steps are not taken, the average discharge weight—and therefore the average PPS payment—would change, in part due to shifts in the types of patients treated, and in part due to improvements in hospitals' diagnostic coding.

Adjusting to remove the effects of coding change during fiscal year 1985 from the DRG weights would not take away additional payments already received by hospitals, but it would prevent these coding changes from being built into future PPS payments.

Along with normalizing and adjusting the DRG weights, the Commission recommends that an adjustment reflecting shifts in the types of patients treated be included as part of the update factor for fiscal year 1986 (Recommendations 1 and 11). If these recommendations were adopted, payments would be allowed to rise as a result of increasing complexity in the Medicare cases hospitals treat, if such increases occur, but not as a result of past changes in coding.

The recommendation to recalibrate using charge data alone and to normalize and adjust the DRG weights is made specifically for fiscal year 1986. Concern has been raised that since hospitals have complete control over charges, they may be able to manipulate future charge-based recalibrations. Control of the DRG weights through charge-setting practices would be particularly possible for those DRGs common to only a few hospitals. This issue is not a concern for fiscal year 1986, since the 1984 charge data are already collected, but will be considered by the Commission in future recalibration decisions.

In upcoming reports, the Commission will address the frequency and timing of future recalibrations. This will be done as part of an analysis of long-run options for the development of a PPS data base and the timing of a number of system changes, including rebasing of the standardized amounts, overall reconstruction of the DRGs, and reweighting of individual DRGs as well as recalibration.

Recommendation 18: Cardiac Pacemaker Implantation

The DRGs involving cardiac pacemakers, DRGs 115, 116, 117, and 118, should be recalibrated in the same manner as other DRGs to reflect changes in practice since 1981. The Commission will continue to analyze diagnosis and procedure coding and DRG classification related to pacemaker implantation and replacement; the distribution of costs and payments across discharges, hospitals, and DRGs; and the impact of PPS on the quality of patient care.

The Commission reviewed the appropriateness of Medicare hospital payments for pacemaker implantation. Problems in the 1981 MEDPAR and Cost Report files were identified that could have affected the weights for the pacemaker DRGs. With currently available data, however, it was impossible to estimate the magnitude and direction of these errors. Furthermore, many of the problems identified are not unique to pacemaker implantation and are likely to be corrected with changing hospital incentives under prospective payment.

Several methodologies were used to compare costs in the pacemaker DRGs with payments under PPS. On average, current payments appear to be as appropriate as for other DRGs. Recalibration of all the DRGs will adjust the pacemaker DRGs to reflect changing patterns of resource use related to advances in pacemaker technology (see Recommendation 17).

Several other issues concerning Medicare payments for pacemaker implantation require further evaluation in the future. There is a lack of specificity in the diagnosis and procedure coding for pacemaker recipients and in the grouping of the discharges into DRGs. The pacemaker DRGs have very high medical supply costs, which appear to be similar across all hospitals. However, since PPS adjusts payments to reflect average cost differences among hospitals related to differences in

location, area wage levels, and medical education, payment differences across institutions in the pacemaker DRGs may not correspond closely to cost differences. In addition, the financial incentives of PPS may lead some institutions to limit certain pacemaker-related services. If this occurs, quality of patient care could be adversely affected. Furthermore, hospitals may make decisions that lower the cost of care at the time of implantation but result in higher net costs for Medicare in the long-term care of the patient. The Commission plans to continue its analyses of these issues in the future.

Recommendation 19: Cataract Extraction and Intraocular Lens Implantation

DRG 39, Lens Procedures, should be recalibrated in the same manner as other DRGs to reflect changes in practice since 1981, including the more frequent implantation of an intraocular lens following cataract removal. The Commission will continue to monitor resource use in this DRG to determine whether the types of patients treated as hospital inpatients change with increased outpatient surgery for cataract removal.

Changes in practice patterns since 1981 were examined in cases assigned to DRG 39 because of the significant increase in the implantation of an intraocular lens (IOLs) following the removal of a cataract. Cataract extraction and/or IOL implantation represented 98 percent of the DRG 39 cases in the 1981 data used to construct DRG weights, but the data are insufficient to determine the percentage of these cases receiving intraocular lenses after removal of cataracts.

Other data indicate that the frequency of IOL implantation following cataract extraction has increased substantially. A national sample of hospital discharges indicated 58 percent of cataract extractions in patients 65 and over were accompanied by implantation of an IOL in 1981. This frequency increased to 85 percent in 1983.

Other changes in practice since 1981 that may have affected resource use for patients in DRG 39 are the increased use of posterior chamber lenses, sodium hyaluronate (Healon, a product used during surgery), and extracapsular rather than intracapsular surgery. Also, the length of hospital stays in DRG 39 decreased.

Since all of these practice changes are likely to be reflected in the hospital charges, the Commission recommends that the adjustments to the weight of DRG 39 be made in the process of overall recalibration (see Recommendation 17).

The Commission notes that future changes in practice resulting from the shift in cataract cases to outpatient settings may affect the type of patients treated as hospital inpatients. The Commission will monitor for evidence of this potential change.

Recommendation 20: Percutaneous Transluminal Coronary Angioplasty

Cases in which Percutaneous Transluminal Coronary Angioplasty (PTCA) is the principal procedure should be removed from DRG 108 and temporarily assigned to DRG 112 before recalibration. The Secretary should immediately implement a mechanism to identify bills for cases in which PTCA is performed in order to provide data for analysis and additional adjustments as appropriate.

PTCA is a new procedure that was not covered for Medicare beneficiaries when DRGs were created or when DRG weights were calculated. PTCA does not have a unique ICD-9-CM procedure code, so that cases in which PTCA was performed cannot be separated from cases involving other procedures given the same code. The procedure code used for PTCA is also used for removal of coronary artery obstruction by thoracotomy. As a result of this deficiency in procedure coding, cases in which PTCA is the principal procedure are assigned to DRG 108. This DRG, created for major surgical procedures that usually require significantly greater resources than PTCA, has a weight of 4.3756. Bills for inpatient hospital discharges during fiscal year 1984 show that PPS payments (excluding cost pass-throughs and indirect medical education payments) for DRG 108 were 155.5 percent of total charges for the services even though comparable PPS pay-

ments for all DRGs averaged 71.4 percent of total charges.

Reassignment of cases to alternative DRGs in the absence of complete information should be done only when available evidence indicates good cause for such action. The Commission considered leaving PTCA in DRG 108 until coding deficiencies could be corrected and cases could be identified for analysis of the resources consumed or moving it temporarily to a DRG that is more appropriate but reasonably clinically meaningful. DRG 112, Vascular Procedures except Major Reconstruction, with a weight of 2.3500 was selected based on the limited indirect evidence available concerning the costs of PTCA. This shift in the DRG assignment should be done before the recalibration for the fiscal year 1986 payments, so that the new weights for DRG 108 and DRG 112 will reflect the revised assignment.

The Commission is aware that PTCA is an alternative to coronary artery bypass graft surgery and that, in certain cases, PTCA is a cost-effective and preferred method of treatment. The recommendation to reassign PTCA from DRG 108 to DRG 112 is based on the Commission's analysis indicating that the original assignment was erroneous due to the deficiencies in procedure coding noted above. The temporary assignment of PTCA cases to DRG 112 results in more appropriate payment for the service, while maintaining the incentive to use this procedure when it is indicated for an individual patient. Further, reassigning PTCA will remove financial incentives that may have existed to perform PTCA when an alternative therapy, either medical or surgical, was preferable.

The Commission chose to recommend reassigning PTCA to a lower-weighted DRG because the original assignment was clearly erroneous. The Commission believes it is inappropriate to allow incorrectly categorized technologies to subsidize other types of cases or to allow other cases to subsidize incorrectly categorized technologies. The Commission also will not hesitate to recommend changes that increase payment for an incorrectly categorized technologies when they are identified.

The Secretary should immediately implement a mechanism to identify PTCA, such as manual review of cases in which procedure code 36.0 is used. Once a sufficient number of PTCA cases have been identified, these data can be used to evaluate the resources consumed and to make additional adjustments as indicated.

Recommendation 21: No Change Recommended for Bone Marrow Transplantation and Infective Endocarditis

The Commission has examined Bone Marrow Transplantation and Treatment for Infective Endocarditis and is recommending no changes in DRG classification or weights at this time, other than those that would occur with recalibration. Information will continue to be gathered and the subjects reconsidered at an appropriate time.

Bone Marrow Transplantation is an established treatment for certain conditions. Experience with this technology is limited and it is currently available in only a few centers in the U.S. Although patients over 65 years of age are not considered candidates for this procedure, Medicare patients eligible due to disability may be potential recipients. No specific procedure code exists for bone marrow transplantation. The procedure would currently be classified on the basis of patient diagnosis into DRGs where conventional treatment may require very different use of hospital resources. The Commission recommends that no action be taken on this issue at this time although it will be reevaluated as it becomes more widely adopted.

Infective Endocarditis was examined because of questions concerning the appropriateness of the reported geometric mean length of stay for DRG 126 and the generally recommended length of stay for treatment of this condition. When the differences between geometric and arithmetic averaging are considered, the geometric mean lengths of stay do not appear to be inappropriate for this DRG. For this reason, as well as the relatively small number of Medicare patients hospitalized with infective endocarditis each year, the Commission recommends that no further action be taken on the issue of infective endocarditis at this time.

Chapter 4

Areas for Further Study and Consideration

Chapter 4

Areas for Further Study and Consideration

The Commission's recommendations focus on achieving both technical and general improvements in PPS within the context of today's changing health care environment. Beyond its recommendations, the Commission believes other issues require serious consideration in the future.

Areas for further study and possible future recommendations are presented in this chapter. The first major area discussed is measurement of case mix. Next, plans for analyzing the data and methods used to calculate the payment amounts are outlined. A number of other issues on the Commission's analytic and research agenda, such as measuring changes in quality of care and in the hospital product, are also described.

The legislative and executive branches are considering several health policy proposals. If these proposals are adopted, the Commission will reexamine its recommendations and proceed with additional analytic work. Some of these proposed policy changes are highlighted at the end of this chapter.

IMPROVING THE MEASUREMENT OF CASE MIX

The DRG patient classification system describes and measures hospital case mix and serves as the basis for payment under PPS. The system uses the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) coding system to categorize discharges into 468 DRGs. The strengths and limitations of ICD-9-CM as a disease and procedure coding system and DRGs as a measure of case mix, resource consumption, and hospital output need to be assessed further. The Commission has identified some of the potential weaknesses of DRGs as a case-mix measurement tool, as well as several issues relating to DRG classification and the setting of weights. Other issues have been raised by concerned individuals or groups and by Commission staff.

This section summarizes the general problems and specific diagnostic and therapeutic practices that will be the basis of a significant portion of the Commission's work. (For further discussion, see Technical Appendix C.)

General Areas for Further Analysis

There are several problems in using DRGs as a case-mix measure. These problems are organized into three basic topics:

- DRG construction and classification,
- PPS implementation policies, and
- Changes in medical practices and technologies.

DRG Construction and Classification

The Commission will evaluate the original data and methods used to construct DRGs to develop recommendations for improving case-mix measurement.

Data Bases Used for DRG Construction and Classification.—The DRG patient classification system was constructed using data bases intended to represent a national sample of hospitals. Some of these data may not have been precise enough to classify and group hospitals and patients accurately. In addition, the data bases may not have adequately represented certain types of hospitals or patient groups, and the construction and classification of DRGs may not appropriately reflect the national distribution of hospital and patient types.

Diagnosis and Procedure Codes.—DRGs are based on ICD-9-CM codes developed almost a decade ago. The codes are not scheduled for revision until the 1990s. Infrequent updating of diagnostic and procedure codes may be adequate for

the statistical uses of ICD-9-CM but inadequate for PPS. The Commission may want to consider an appropriate mechanism to add new codes reflecting changes in medical technologies, practices, and procedures before the scheduled revision of ICD-9-CM.

DRG Assignment Criteria.—Initial DRG partitioning is based on principal diagnosis and operative procedure. Further partitioning may be based on age, secondary diagnoses (complications and comorbidities), and disposition. There are several issues relating to the use of these variables in DRG construction and assignment and their potential effects when used for PPS.

- *Principal Diagnosis:* The initial partitioning in DRG assignment is based on the principal diagnosis for the discharge described by an ICD-9-CM code. When no single condition causes the patient's admission, there may be ambiguities in determining the principal diagnosis and in selecting an appropriate code. In addition, the principal diagnosis may not always be the most resource-intensive condition.

- *Operating Room Procedures:* In DRG assignment, discharges are initially categorized into one of 23 Major Diagnostic Categories (MDCs), according to the principal diagnosis. Then the MDCs are divided into 468 DRGs, depending upon the presence or absence of an operating room (OR) procedure and other factors. Several issues relating to the use of OR procedures in DRG assignment will be explored, including: (1) completeness, consistency, and accuracy of the list of OR procedures; (2) inclusion of new procedures; and (3) undesirable incentives that may result from the current use of OR procedures in DRG assignment.

- *DRG 468:* Performance of a procedure considered unrelated to the principal diagnosis generally places a discharge into DRG 468. This may lead to inappropriate DRG assignment and may result in DRG 468 being heterogeneous, both clinically and in terms of resource consumption. The assumptions used in relating specific procedures to particular MDCs and DRGs may warrant evaluation to ensure correct assignment of cases to DRG 468.

- *Secondary Diagnoses:* The DRG patient classification system uses secondary diagnoses to determine the presence of complications and/or comorbidities (CCs) in about 200 DRGs. Further analysis is required to determine: (1) completeness, consistency, and accuracy of the list of CCs; (2) how the sequence or combination of these secondary diagnoses affect DRG assignment; and (3) the ability of CCs to explain differences in resource consumption within DRGs.

- *Multiple Procedures or Multiple Diseases During One Admission:* Some patients may undergo several procedures or present multiple diagnoses during one hospitalization. PPS generally provides higher payments for separate admissions than for treating all existing conditions in one admission. This may create inappropriate incentives for some cases. Additionally, international coding rules dictate that some conditions or procedures are more accurately described by combinations of codes. The present use of one diagnosis and/or procedure code at any of the partitions in DRG assignment, rather than combinations of codes, requires further examination.

- *Patient Age:* In a number of DRGs, age is used for DRG assignment. The age breaks are generally 0 to 17 years, 18 to 69 years, and 70 years and more. Other age breaks may be more appropriate for determining DRG assignment for the Medicare population because they would create more homogeneous patient groups, clinically and in terms of consumption of resources.

- *Disposition:* Some DRG assignments include patient disposition such as transferred, left against medical advice, or died. For example, a few DRGs use death during hospitalization in the assignment criteria. Similarly, some DRGs use case transfer from one hospital to another in DRG assignment. The use of disposition in DRG assignment may warrant further analysis.

Homogeneity Within DRGs.—Cases grouped into a DRG may be dissimilar clinically or in terms of resource consumption. The data and methods used to estimate resource consumption may have been imprecise, resulting in inappropriate grouping of low resource- and high resource-consuming cases into certain DRGs. Some DRGs appear more clinically heterogeneous than others. The implications that varying degrees of heterogeneity may have for payment purposes require examination. Mechanisms for further minimizing differences within DRGs, such as stage or severity of illness distinctions, should be assessed.

Case-Mix Distribution Among Hospitals.—Certain institutions may treat a subset of cases within a DRG. Thus, their cases are substantially different than the distribution of cases typically in that DRG, making an average payment inappropriate. For example, hospitals offering very specialized services are more likely to treat cases using these services, which may skew the distribution of their cases within a DRG. Because resource consumption of cases may differ by type of institution, current payments may not be appropriate for all types of institutions.

Implementation Policies

Some problems in the use of DRGs are due to policies governing payment for certain types of cases. The Commission will examine these policies to determine whether changes would result in more accurate and appropriate payments.

Outlier Policy.—Problems may exist in both the criteria used to determine outlier status and the payment amount for these cases. Current payments for outlier cases may not accurately reflect increased consumption of hospital resources by these patients. This may be a particular problem for hospitals that treat many of these cases.

Indirect Medical Education.—An additional allowance is paid on the Federal portion of each PPS payment for discharges from hospitals with approved medical education programs. This allowance for indirect medical education costs serves as a proxy for a number of factors that may increase the cost of care in teaching institutions but that are not otherwise adequately recognized under PPS. The Administration has proposed reducing this allowance to half of its current level. Others argue that the indirect medical education allowance should be continued at its current rate until adjustments are made for the other factors, such as severity of illness, which were the basis for creating the indirect allowance. The Commission will continue to monitor the work in this area.

Transfer Policy.—In the data bases used to create DRGs, a transfer of a patient between two hospitals was recorded as two stays. These two stays were averaged with all other stays to set DRG weights. To the extent that transfers involved a very short initial stay and a longer stay at the discharging hospital, averaging may result in inappropriate payment for certain cases.

Use of DRGs by Other Third Party Payers.—The DRG categories were created using data from acute care hospitals generally. The standardized amounts and DRG weights, however, were set primarily using data from the Medicare program and reflect the costs of caring for Medicare beneficiaries. Several other private and public third-party payers have begun to use DRGs for payment. Because of its statutory mandate, the Commission will focus on changes in DRGs which serve the needs of the Medicare program. As a result, the changes recommended by the Commission may not necessarily be appropriate for the other payers. The extent to which the Commission will respond to the needs and problems of other payers is still unresolved.

Changes in Medical Practices or Technologies

Incorporating new or changing technologies and practices into an existing case-mix measurement system requires improved data and timely updating of the system. A mechanism may be necessary to determine DRG classifications and weights (prices) in the absence of historical data, so that diffusion of new devices or practices is not inappropriately retarded.

Coding of New Technologies or Practices.—When a new technology is adopted or a practice pattern changes which cannot be adequately identified by an existing ICD-9-CM code, new diagnosis or procedure codes may need to be created and incorporated into existing or new DRGs. An

expedited timetable for incorporating codes for new technologies or practices may also be desirable.

Distribution of New Technologies and Procedures.—A new and expensive device or procedure may be adopted by only a small number of hospitals. Thus, it may be inappropriate for the payment to all hospitals to reflect the cost of this device or procedure. The Commission is examining payment mechanisms that would not overcompensate or undercompensate hospitals for using these new technologies or procedures.

DRGs with High Device Costs.—DRG weights are based on resource consumption, including the use of sometimes costly devices. Hospital payments are adjusted to reflect differences in location, wage rates, medical education, and outlier cases. The Commission will examine the appropriateness of applying these adjustments to DRGs where the cost of the device is a substantial proportion of total patient care costs.

Diagnostic and Therapeutic Practices for Further Analysis

The Commission discussed the following specific issues illustrating the general areas described previously. Although information was insufficient to develop recommendations, the Commission intends to continue its analysis of these issues. In the future, the Commission will discuss and analyze additional issues as well.

Cyclosporine Used in Renal Transplantation

- Cyclosporine is a new drug that may improve outcomes for many organ transplantation recipients. It was approved by the Food and Drug Administration (FDA) in late 1983.
- Cyclosporine may alter the hospital resources required for patients undergoing transplantation, for both the initial length of stay and over the long term by preventing or lessening rejection episodes.

The Commission is primarily concerned about the impact of cyclosporine use on treatment of renal transplant patients. A Federal Task Force on Organ Transplantation was appointed in early 1985 to examine all issues related to organ transplantation including payment for transplantation and immunosuppressive medications. The Commission is monitoring work by the Task Force, as well as the Health Care Financing Administration (HCFA) and the American Council on Transplantation, as part of its continuing analysis.

Magnetic Resonance Imaging

- Magnetic resonance imaging (MRI) is a new diagnostic technology with many potential applications. Widespread use of this technology may alter resource consumption in many DRGs.
- MRI involves very large capital expenditures and generates high operating costs. It may substitute for other imaging technologies in some instances and, in others, may be added to the procedures now used.

MRI is the subject of ongoing research related to design, clinical applications, and cost. The Commission is continuing its analysis of the clinical applications, capital and operating costs, and the impact of this technology on quality of care. Alternative payment mechanisms for new technologies, particularly those involving multiple DRGs, will be examined as a general issue using MRI and other technologies as case studies.

Dual Joint Procedures in One Hospitalization

- Bilateral total hip replacements and other dual joint replacement procedures may be performed in two hospital stays or in one hospitalization for a subset of patients. A single hospitalization may involve two operations or one operation when both joints are replaced.
- DRG assignment and payment are the same whether one joint or two are replaced during a stay, although the resource inputs may be quite different.
- There are differing opinions in the medical community regarding patient selection and the efficacy of performing two joint replacements in one hospitalization. Available data bases contain little information on the extent of this practice and its associated costs.

Current payment policies may create incentives for two hospitalizations when one would be more appropriate. The Commission will examine the appropriateness of current payment mechanisms for admissions involving multiple procedures during one hospitalization. More current and complete data are being gathered by the Commission and by HCFA. The Commission will continue to consult with HCFA, review the data and methodologies, and make recommendations at an appropriate time when data are available.

Alcohol Dependence DRG

- The alcohol dependence DRG includes both detoxification and rehabilitation services. These treatments may require different hospital resource inputs in terms of both length of stay and type of services.
- Several studies are under way to furnish information on services provided for detoxification and rehabilitation, alternative classification systems for alcohol dependence, and effects PPS may have on services provided to patients.
- Alcohol and drug abuse hospitals and units are exempt from PPS until October 1985.

The current DRG classification may create inappropriately heterogeneous groups, clinically and in terms of resource consumption. The Commission recognizes that HCFA and others are conducting research on this issue. The Commission will consult with HCFA and other groups and use available data in making any recommendations regarding more appropriate DRG classifications or weights for patients undergoing treatment for alcohol dependence.

Cochlear Implants

- The cochlear implant is a new prosthesis that assists persons with certain hearing impairments. A single channel device was conditionally approved by the FDA in November 1984. A multichannel device is currently under review by the FDA for premarketing approval.
- This procedure has no specific ICD-9-CM code. Once the code is determined, it could potentially be assigned to the DRG for miscellaneous ear, nose, and throat surgery or the DRG for major head and neck surgery. The other procedures in these DRGs may involve very different use of hospital resources.
- When the Commission considered this technology, the single channel device had not received marketing approval from the FDA. To date, experience with this device has been limited.

The Commission will continue to examine the specific issues this topic raises as well as the general issue of payment for new technologies where cost and charge data are insufficient for appropriate DRG assignment and calculation of weights.

Extracorporeal Shock Wave Lithotripsy

- Extracorporeal shock wave lithotripsy (ESWL) is a new, noninvasive procedure that substitutes for invasive surgery for certain types of kidney stones.
- ESWL is a capital-intensive technology with high operating costs.
- This procedure has no unique ICD-9-CM code. To group cases involving ESWL into a DRG, a procedure code needs to be assigned, and ESWL has to be designated as either a medical or surgical procedure.
- When the Commission considered this technology in 1984, it had not received marketing approval from the FDA. In late 1984 the FDA approved ESWL for marketing, although only a few centers currently have units. Data concerning patient outcomes and the resources consumed by patients treated with ESWL are preliminary.

The Commission will continue to examine ESWL, in consultation with HCFA, and make recommendations when more data are available. The Commission will view ESWL as one of several illustrations of the general issue of payment for new technologies where cost and charge data may not be sufficient for determining appropriate DRG assignment and calculation of weights.

Dermatologic Disorders

- Cases classified into one of five DRGs related to dermatologic disorders may comprise inappropriately heterogeneous patient populations, clinically and in terms of resources required for their care.
- Cases with differing levels of severity of illness may not be evenly distributed among all types of hospitals, since certain institutions may treat more severe, resource-intensive dermatologic cases than others.

The Commission will examine potentially inappropriate classification of cases in these DRGs. In addition, it will examine the issue of unequal distribution of resource-intensive cases among different types of hospitals.

Cystic Fibrosis

- Cystic fibrosis (CF) patients may be inappropriately classified into DRGs with patients having less resource-intensive conditions.
- The data bases used to create DRG classifications and weights may have underrepresented certain patient and hospital groups.

Although the issue of CF is not of direct relevance for Medicare due to the small number of Medicare patients involved, the Commission will examine the general issues this topic raises.

Alternative Approaches to Case-Mix Measurement

The potential problems noted in using DRGs for PPS indicate the need to improve the case-mix measurement tool. The Commission will examine three broad approaches to improving case-mix measurement: (1) retain the current DRG system based on ICD-9-CM coding, but revise it in an incremental fashion as continued experience reveals problem areas; (2) retain the current system in principle, but reconstruct it using a newer and more complete data base; and (3) consider an alternative case-mix measurement system, either in conjunction with DRGs or to replace DRGs.

Incremental Change

Many problems could be corrected in an incremental fashion leaving the basic construction, classification, and weighting of the DRG system intact. Incremental change could involve improvements such as: splitting DRGs to create more homogeneous groupings; combining DRGs; examining different age breaks to find the ones that minimize variance in resource consumption; and incorporating new ICD-9-CM codes into the DRG system.

The Commission is concerned that changes be made only when they can be validated using the best available data. The incremental approach makes each of these changes somewhat separate and iterative. The cumulative effect of such changes may be a case-mix measurement tool that differs in many important respects from the current DRG system.

Reconstruction of DRGs

The Commission also will examine the possibility of reconstructing the DRG system using more current, accurate, and complete data. Improved data might resolve many of the problems noted such as identification of cases involving multiple procedures or diagnoses. DRGs could be reconstructed so that such cases are explicitly identified and grouped. When weights are calculated, payment would more accurately reflect the resource consumption of these cases.

Reconstruction could also facilitate certain health policy changes. For example, improved data would permit better identification of transfer patients and their consumption of resources. Based on this information, appropriate changes could be made in transfer policy.

The Commission recognizes that each time a change is made, there is a certain degree of administrative burden, for both HCFA and the hospital industry. Reconstructing the entire system, while involving major changes, might in the long run reduce the administrative burden more than an incremental approach. Reconstructing the sys-

tem need not preclude minor incremental changes that may be necessary over time, such as inclusion of new codes to identify new technologies.

Alternative Case-Mix Measurement Systems

The Commission will examine several case-mix measurement systems currently in various stages of research and development. They include disease staging, severity of illness, patient management categories, and systems based on physiological measurements in conjunction with other patient characteristics. These systems differ by type and number of variables used to group patients. The systems were developed for utilization review, reimbursement, quality assurance, and patient management. Such systems generally use either patient medical records or discharge abstracts as their main data source. For prospective payment purposes, such systems appear to fall into two groups: those that could be applied in conjunction with DRGs and those that could substitute for DRGs.

Systems Designed to Be Used in Conjunction with DRGs.—Several systems under development might improve DRGs. For example, systems that outline several stages of disease or severity of illness levels could segregate cases further to increase homogeneity. The underlying assumption of these systems is that patients in more advanced stages of disease require more hospital resources than patients who are less severely ill. Application of such a system in conjunction with DRGs might eliminate some of the flaws previously identified, although it would not necessarily address other DRG problems, since the existing system is modified but left essentially intact. This does not preclude the option of performing a reconstruction of the system at the same time.

Systems to Replace DRGs.—Rather than modifying the existing DRG system, alternative systems are under development that could replace DRGs entirely. It may be advantageous to implement a new, presumably better system that would not contain many of the flaws identified in DRGs. Any new system, however, might contain other deficiencies. While DRGs present certain problems, the benefits of this system are uncertain because it has been in effect for a relatively short time, initial flaws have not yet been corrected, and the transition to fully implemented PPS is not complete. The Commission is concerned that the momentum initiated by PPS not be interrupted. A major change, such as a new case-mix measurement system, should only be undertaken if it groups cases for payment purposes more accurately than the current system. This cannot be determined until the benefits and the problems of the DRG system are more fully assessed.

The Commission will examine the more fully developed alternative systems, both those that replace and those that complement DRGs. The ability of such systems to produce groups that are medically meaningful, statistically homogeneous, and reflective of resource consumption will be assessed.

IMPROVING THE CALCULATION OF PAYMENT AMOUNTS

Problems related to the lack of timely, accurate, and consistent data for setting payment amounts have been repeatedly discussed throughout this report. The Commission is concerned with these problems and plans to examine them more fully in the future.

The following section identifies specific problems associated with the data used to set the standardized amounts and to determine the DRG weights. In addition, this section outlines approaches the Commission will consider that are directed toward improving the calculation of the payment amounts.

Setting the Standardized Amounts

The standardized amounts are derived from data supplied on hospitals' Medicare Cost Reports. On the cost report, hospitals are required to record extensive information including ag-

gregate charges and aggregate costs by department and Medicare charges in each department.

The Commission has identified several problems associated with using aggregate cost information in calculating payment amounts for individual cases. Specifically, cost per case estimates generated from cost report data may not accurately reflect the cost of resources necessary to treat Medicare patients. This inaccuracy results from cost reporting practices such as:

- Lack of uniformity in reporting cost data,
- Limitations in the cost allocation process,
- Opportunities for manipulation of cost data, and
- Problems caused by the incentives of cost-reimbursement.

Furthermore, the most recent audited cost report data available at any given time are generally three years old.

In addition to the problems noted above, practices employed by the hospital industry to set the charges used in the calculation of cost-to-charge ratios included on the cost report do not necessarily correspond to actual resource costs. For example, many hospitals charge for operating room services based on an hourly rate (or some fraction of an hour). This method assumes that each hour of service consumes the same amount of resources. In actuality, however, different operating room procedures require varying amounts of personnel and equipment. Therefore, use of hourly rates results in underpricing and overpricing of services. (For further discussion, see Technical Appendix C.)

In setting payment, the process of standardization adjusts each hospital's average cost-per-case to place hospitals on a comparable basis. The Commission believes that improvements in the adjustments to account for differences in area wages, costs related to caring for a disproportionate share of low-income patients, and other costs related to the characteristics of hospitals and their patients, are necessary to make PPS payments more equitable.

During the next year, the Commission intends to examine in greater detail the limitations and inaccuracies of the data used to calculate and adjust the standardized amounts. Analysis will focus on the reliability of cost data as an indicator of resource consumption, the refinement of adjustments, and the collection of comparable data from all PPS hospitals. Moreover, the Commission will be developing options for future recalculation of the standardized amounts based on more recent data, as described in Recommendation 16 in Chapter 3.

Determining the DRG Weights

Establishing DRG weights involves the following data: (1) per-diem costs for routine and special care units (including nursing and other services); and (2) ancillary service costs and charges for revenue-producing departments of the hospital. Limitations of these data are described below. (For further discussion, see Technical Appendix C.)

Per-Diem Costs—Nursing Services

The method used to allocate nursing costs assumes that every patient uses the same amount of nursing resources per day, regardless of the patient's clinical condition and need for nursing care. The Commission has examined evidence suggesting that this method may have introduced significant inaccuracies in the DRG weights. Recalibration using charge data as recommended by the Commission for fiscal year 1986 would not correct this problem since the same assumption is made using per-diem charges. (For further discussion, see Technical Appendix C.)

The Commission's first concern regarding allocation of nursing costs relates to equity of PPS for Medicare beneficiaries and hospitals. If the DRG weights do not accurately reflect resource use, overpayment or underpayment for certain diagnoses may result. This issue is important because nursing costs represent a significant portion of a hospital's operating budget and an even larger share of its labor expenses. Depending on the case mix served, some hospitals may not be adequately compensated for services provided while others may receive payments in excess of their costs. Faced with these inequities in payment, hospitals may limit admissions or reduce services for patients requiring intensive nursing care. As a result, Medicare beneficiaries may receive lower quality care or have less access to services.

The Commission's second concern relates to the ability of the DRG patient classification system to account adequately for the severity of the patient's illness. It has been argued that more severely ill patients usually require a higher intensity of nursing care, resulting in higher hospital costs. Therefore, a more precise measure of nursing resource use may improve the DRG system's ability to reflect more accurately the variation in resource use among cases. If DRG weights were adjusted to reflect variations in nursing intensity among types of patients, payments would, presumably, be more equitable among hospitals. In addition, the perceived need for modifying the DRG system for illness severity may be diminished.

The Commission will analyze the current per-diem method for allocating routine and special care nursing costs to each DRG to determine whether the DRG weights accurately reflect the cost of nursing services. If not, alternative methods for allocating nursing costs on a diagnosis-specific basis will be explored. The Commission will also examine whether improvements in measuring nursing resource use may minimize the need perceived by some to adjust the system otherwise for severity of illness.

The Commission regards allocation of nursing costs as a sufficiently important issue to suggest that the Secretary of the Department of Health and Human Services also examine this topic. The Commission will collaborate with the Secretary to ensure that its efforts in this area are coordinated and mutually productive.

Per-Diem Costs—Other Services

Per-diem costs and charges also include housekeeping, dietary, laundry, and similar resources used by the patient during a stay. Therefore, the method for allocating these costs to DRGs may introduce some of the problems noted for nursing costs. In addition, the change in reimbursement policies may affect the accuracy of these costs. The previous cost reimbursement system provided the incentive to assign costs to inpatient services rather than to outpatient services in order to maximize reimbursement. The routine (Section 223) cost limits, however, restricted the hospitals' ability to attribute these costs to inpatient routine services. Prospective payment provides further incentives to assign costs to outpatient services.

The Commission will examine the methods used to derive per-diem costs and charges for other services to determine whether they are accurately reflected in the DRG weights. The Commission will also evaluate alternative approaches for allocating other service costs to DRGs if necessary.

Ancillary Service Costs

The limitations of Medicare Cost Report data and hospital charge-setting practices also affect the accuracy of allocating costs of ancillary services to DRGs. The cost-to-charge ratios used to assign costs for ancillary services may introduce errors in the calculation of the DRG weights and the payment amounts. This methodology, intended to provide a correction for interdepartmental variation in markups due to hospital price setting, may introduce overpricing and underpricing of DRG payment amounts.

The estimate of ancillary costs is derived by multiplying Medicare charges by the hospital departmental cost-to-charge ratio. For the six departments listed on the Medicare claim form, the actual cost-to-charge ratio is used. All remaining ancillary charges are aggregated into one "department," and an average cost-to-charge ratio is used. If the cases in a DRG have a significant number of ancillary services which are aggregated, this averaging process may lead to an inaccurate DRG weight.

Under the Commission's recommendation for recalibration using charge data, cost-to-charge ratios would not be used. However, hospital charge-setting practices might still distort relative DRG weights.

The Commission plans to examine the impact of hospital charge-setting practices and the cost-to-charge methodology on the assignment of ancillary service costs to DRG weights.

Approaches to Modifying DRG Weights

The Commission will continue to examine two general approaches to modifying the payment amounts: recalibration/reweighting and pricing.

Recalibration/Reweighting

The Commission considered several options for recalculating the entire set of DRG weights (recalibration) or a subset of the DRG weights (reweighting). For fiscal year 1986, the Commission recommends recalibration using the most recent charge data available. In the future, three alternative sets of data could be used for recalibration or reweighting: (1) costs and charges from the same year; (2) costs and charges from different years; or (3) charges only.

Ideally, cost and charge data from corresponding years should be used; the data should be as current as possible to reflect patterns of care and technology usage. Using data from different years results in applying the costs of services to charges for a different set of services and possibly introducing a new type of error into the rates. In addition, the Commission is concerned that the continued use of charge data alone to set DRG weights might offer opportunities for hospitals to manipulate the weights of some DRGs. It may be possible to continue to recalibrate using only charges if the incentives of PPS, data reporting requirements, or processing methods result in charges that more accurately reflect resource costs. If, however, evidence shows that significant cross-subsidization or other bias in setting charges still exists, an alternative method for determining DRG weights will be necessary.

During the next year, the Commission will examine this issue further to determine an equitable, accurate, and timely approach to recalibration and reweighting of the DRGs.

Pricing

As noted previously, there may be times when adjustments to individual DRG weights will be necessary in the absence of appropriate Medicare cost or charge data. In such cases, the Commission will explore the feasiblility of establishing prices for individual DRGs to support, or replace, the recalculation of one or more DRG weights. This method might be particularly useful in determining payment amounts for new medical practices or technologies in the absence of adequate cost and charge data.

DRG weights could be calculated by using information from manufacturers, professional groups, hospitals, and others to estimate the cost of care for a particular DRG. This cost estimate could then be converted to a DRG weight for payment. The pricing technique offers the advantage of using information from a variety of sources in addition to, or in place of, Medicare cost and charge data. Thus, this technique eliminates the problems previously outlined relating to the limitations of the Medicare data.

In summary, the Commission will examine the limitations of cost and charge information and the use of this information in setting the standardized amounts and the DRG weights. For example, to reduce lag time, the Commission may consider using information from cost reports as submitted (rather than waiting for auditing to be completed) or final reports from a sample of hospitals. Alternatively, the standardized amounts might be set by systematically developing uniform cost information from a sample of hospitals. The Commission plans to study these and other options to reduce the problems associated with the quality of cost and charge data and to improve the timeliness, accuracy, and equity of payments under PPS.

OTHER ISSUES TO BE CONSIDERED BY THE COMMISSION

Further analysis in the areas described previously is directed toward developing recommendations regarding specific improvements in case-mix measurement and the calculation of payment amounts. Other issues requiring further study are briefly discussed below.

Measuring Quality of Care and Health Outcomes

The Commission recognizes its statutory responsibility to monitor changes in the quality of care and health outcomes for Medicare beneficiaries. The assessment of these changes in terms of past and current practices will influence the Commission's future recommendations regarding DRG classifications and weights and the update factor for payments. In the formation of its analytic agenda, the Commission has placed high priority on assessing existing information, developing new data bases to make quality assessments, and improving current measures of quality of care and health outcomes. The Commission's data development and analysis will supplement the evidence gathered by Peer Review Organizations and the studies of quality of care by others in government and in the private sector.

Measuring Real Case-Mix Change

The Commission has recommended that the Secretary of the Department of Health and Human Services estimate and incorporate an allowance for real case-mix change occurring during fiscal year 1985 in the update factor for fiscal year 1986. The Commission recognizes that distinguishing changes in real case mix from those arising from altered coding practices is a difficult but important task. Therefore, it plans to monitor HHS's activities and to continue to consult with and make recommendations to the Secretary on this subject.

Measuring Change in the Hospital Product

PPS may contain incentives for changing the hospital product. Faced with these incentives, hospitals may substitute inpatient services with services provided in outpatient settings or other alternative sites of care. The Commission recognizes the importance of these hospital product changes in updating payment amounts, changing DRG classifications and weights, and affecting the health outcomes of Medicare beneficiaries. The Commission plans to develop methods for measuring changes in the hospital product and to monitor the effects of such changes.

Regional Practice Pattern Variations

The statute identifies regional variation in medical practice as an important consideration in making recommendations for updating and creating DRGs and establishing relative weights that accurately reflect appropriate differences in resources consumed. In addition, practice pattern variations contribute to the problems of defining the hospital product and measuring quality of care. The Commission will collect and assess information on these subjects with emphasis on variations involving costly or potentially inappropriate services.

Disproportionate Share Hospitals

The Commission has identified the need for specific adjustments for hospitals serving a high number of low-income patients to offset the higher costs of treating them. In its recommendations, the Commission has requested that HHS develop an appropriate definition of disproportionate share hospitals and a methodology for implementing an adjustment for such hospitals. The Commission will examine decisions made by the Secretary regarding the definition and treatment of disproportionate share hospitals. It will work cooperatively with HHS to develop appropriate definitions and methods of calculating adjustments to payment amounts.

Hospital Market Area Definitions and Wage Indexes

The Commission has recommended that the Secretary correct inadequacies in the current hospital market area definitions. The purpose of this correction is to better reflect hospital labor markets in the application of the hospital wage index adjustment to the payment amounts. In particular, the Commission has identified the need to distinguish between inner city and suburban areas within an MSA and between different rural areas within a state. The Commission will review the decisions made by the Secretary regarding this recommendation. In addition, the Commission will participate in studies regarding the magnitude of labor market differences in these areas and methodologies for drawing boundaries.

Effects of the Transition

The Commission recognizes the importance of the transition from payments based on hospitals' past costs to payments based on national averages. Over the next few months, the Commission plans to further analyze the impact of the transition on various types of hospitals. The effect of the transition will be assessed in light of concerns with the method currently used to determine the prospective payments as well as other policy changes. The analysis will use information that reflects, to the extent possible, changes in hospital behavior since PPS was developed.

Additional Analytic and Data Development Activities

The Commission will conduct and support research, as needed, to augment staff analyses regarding improvements in case-mix measurement and the updating of payment amounts. This may include, for example, further analysis of issues concerning the construction of the hospital market basket.

Finally, the Commission will consider other research topics that provide a broad view of the effects of PPS. A major effort will be a synthesis of data and anecdotal evidence on the effects of PPS on the health care system. This study will focus on changes in overall Medicare expenditures under PPS, for both inpatient and outpatient services. In addition, the study will include the effects of PPS on hospital behavior, operating structure, management strategies, and delivery of health care services.

The Commission is authorized by statute to collect and assess information to support the analytic agenda described above. To the extent possible, the Commission will carry out this responsibility using existing information, collected and assessed by its own staff, as well as analysis of others. It is also necessary for the Commission to award grants and contracts to support its data development, analysis, and research activity. Most Commission expenditures in these areas will be through open competition in response to grant solicitations or requests for proposals in a variety of areas relevant to PPS. Some portion of the budget will be for smaller projects obtained through limited competition or sole-source arrangements.

In forming its analytic agenda, the Commission identified a range of research issues and topics and established priorities among them. This process was guided by congressional statements of the role and responsibilities of the Commission. Two additional criteria will be used for defining the content and scope of each research effort. The first is the extent to which other organizations within the government and in the private sector are conducting research relating to each topic. Studies relevant to PPS will be monitored in the process of carrying out the research agenda to avoid duplication of efforts. The second is a consideration of the feasibility of each topic to ensure that analytic results contribute to the decision-making process of the Commission in terms of the content and timeliness of the research and the feasibility of completing the study at a reasonable cost.

The Commission's current extramural research agenda includes studies that focus on the specific topics previously identified. Data acquisition and data base construction are ongoing and will continue to be governed by the analytic priorities of the Commission.

OTHER POLICY CHANGES THAT MAY AFFECT PPS

The Commission's recommendations were developed in light of current PPS policies. There are a number of emerging issues in Federal health policy that may affect PPS hospitals and Medicare beneficiaries. The Commission recognizes its responsibility to respond to health policy changes; therefore, it is likely that additional issues will occupy its attention during the next year.

The Commission wants to note specific issues currently under discussion in the executive and legislative branches of the government and reported in the media. Many of these issues may have a profound effect on the overall impact and functioning of PPS.

In the Administration's fiscal year 1986 budget, it has proposed several actions which would significantly affect PPS. A major initiative would "maintain reimbursement under the prospective payment system" for fiscal year 1986 with rates at the level of those in effect for fiscal year 1985. Savings of $1.8 billion for fiscal year 1986 are associated with this proposal, which the Department of Health and Human Services anticipates implementing under current law. The Department further states that new legislation "will be sought if an application of current law does not achieve this level of savings."

Another Administration proposal having a major effect on PPS would "eliminate doubling of indirect medical education payments," with an anticipated savings of $695 million in fiscal year 1986. This proposal requires legislative change.

A final budget proposal submitted to the Congress would "freeze payment for direct medical education," with a savings estimate of $150 million for fiscal year 1986.

In addition to the Administration's budget proposals, Public Laws 98-21 and 98-369 contained provisions for further policy changes in PPS in the future. Although capital costs are passed through under current law, Pub. L. 98-21 requested a report by October 1984 on "methods and proposals for legislation by which capital-related costs, such as return on net equity, associated with inpatient hospital services can be included within the prospective payment amounts." Although this report has not yet been submitted, the Commission anticipates that the inclusion of capital within PPS will be a topic of extensive policy debate in the coming months.

The Congress also requested that the Secretary report and prepare legislative recommendations by July 1, 1985, "on the advisability and feasibility of providing for the determination of payments based on a DRG-type classification for physicians' services furnished to hospital inpatients." The inclusion of physician payments within a DRG-based system will be a critical topic for future policy debate.

Pub. L. 98-369 requires the Secretary to adjust the prospective payment wage index "taking into account wage differences of full time and part time workers," with such adjustments considering overpayments and underpayments retroactive to October 1, 1983. Potentially this would have a major impact on hospital payments under PPS.

These or other health policy changes may require the Commission to modify its analytic plans or reconsider certain recommendations. The Commission will consider policy changes in the context of its role, responsibilities, and priorities; the overall goals of PPS; and the distributional consequences of the alternatives.

The Commission believes it has a long-term role related to maintaining and updating PPS. In the future, significant changes will continue to occur that will influence the direction of health care delivery and financing. As these changes develop, additional items will be placed on the Commission's analytic agenda. These items will be examined and recommendations will be made, where appropriate, to the Secretary of the Department of Health and Human Services.

Report Appendix

BIOGRAPHICAL SKETCHES OF COMMISSIONERS

Stuart H. Altman

Stuart H. Altman, Dean of the Heller School, Brandeis University, is an economist whose research interests are primarily in the area of Federal health policy. Between 1971 and 1976, Dean Altman was the Deputy Assistant Secretary for Planning and Evaluation/Health at HEW. From 1973 to 1974 he was also Deputy Administrator at the Cost of Living Council. He is a member of the Institute of Medicine and President of the Association for Health Services Research. He serves on the Editorial Board of *Policy Analysis*. His recent publications include, *Federal Health Policy: Problems and Prospects*, with Harvey M. Sapolksy; "The Impact of Cost Shifting on the Health Care System," in *Health Care Commentary*, Health Insurance Association of America; and, "The Growing Physician Surplus: Will it Bankrupt or Benefit the U.S. Health System?" for the National Commission for Manpower and Policy. Dean Altman has also served on the President's Commission for a National Agenda for the Eighties. He received an M.A. and a Ph.D. from UCLA and taught at Brown University and the Graduate School of Public Policy (University of California, Berkeley). He is chairman of the board of directors of the University Health Policy Consortium (which includes Brandeis and Boston University).

Karl D. Bays

Karl D. Bays is Chairman and Chief Executive Officer of the American Hospital Supply Corporation. Mr. Bays joined AHS in 1958; in 1971, he was named chief executive officer; and in 1974, chairman of the board. Mr. Bays received a B.S. in Business and English from Eastern Kentucky University in 1955. From 1955 to 1957, he served as a Captain in the United States Marine Corps. In 1958, he was awarded an M.B.A. by Indiana University. He has an honorary Doctor of Commercial Science from Union College (Kentucky), an honorary Doctor of Laws from Eastern Kentucky University, and an honorary Doctor of Humane Letters from Cumberland College (Kentucky). In 1982, he was appointed to the Social Security Advisory Council and to the Executive Committee of President Reagan's Private Sector Survey on Cost Control. In 1981, he was named to the National Task Force on Competition and Health Care. He was named outstanding chief executive officer in the hospital and health-care supplies industry, *Financial World*, 1975, 1981, and 1982. Among his publications are a perspective on hospital strategic priorities in *Trustee*; "Competition in Health Care: Who Wins?," *Bulletin* of the American Protestant Hospital Association; "Export Sales Can Reduce Unemployment," *Commerce*; and "Financial Management Under Third Party Reimbursement," *Topics in Health Care Financing*.

Harold A. Cohen

Harold A. Cohen is the Executive Director of the Health Services Cost Review Commission of the State of Maryland, and a lecturer in the Department of Health Care Organization of the Johns Hopkins University. Prior to 1972, he was on the economics faculty of the University of Georgia. He holds an M.A. and Ph.D. in economics from Cornell University, and received his Bachelor's degree from Harpur College (now the State University of New York at Binghamton). He has been a leader in the development and administration of State level cost review and rate setting efforts. He is a member of the American Economics Association, the Southern Economic Association, the Western Economic Association, the American Public Health Association, and the Health Economic Research Organization. Dr. Cohen is the author of numerous professional publications, including "the Financing of Coronary Artery Bypass Surgery," *Circulation*, November 1982; "Case Mix and Regulation," *Topics in Health Care Financing: Diagnostic Related Groups*, Summer 1982; "Evaluating the Cost of Technology," *Health Care in the 1980s*, 1979; and "Controlling Medicaid Expenditures by General

Price Controls," *The Medicaid Crisis: What States Can Do in the 1980s*, 1982.

John W. Colloton

John W. Colloton is Director of the University of Iowa Hospitals and Clinics, and Assistant to the University President for Statewide Health Services. He received his B.A. in Business from Loras College and an M.A. in Hospital and Health Administration from the University of Iowa. He has held his present positions since July of 1971. For the 15 years prior to that, Mr. Colloton held various positions at the University of Iowa Hospitals and Clinics. He is a Member of the American College of Hospital Administrators. He is Vice Chairman of the Blue Cross board of directors, and has an extensive record of professional activities, including the chairmanship of the Association of American Medical Colleges' Council of Teaching Hospitals, the chairmanship of the Iowa Hospital Association, and memberships on the board of directors of the American Association of Hospital Planning, the AAMC Executive Council, the American Joint Liaison Committee, the DHEW Advisory Committee on the Future of Public Health Service Hospitals, and the advisory committee to the Association of Academic Health Centers' study of the impact of Federal policy changes on academic health centers.

Yvette F. Francis

Yvette F. Francis is Medical Director of St. Albans Family Medical Center, Queens, New York, and Medical Director of the Sickle Cell Center for Research. Previously, she was Director of Medical Services at Windham Children's Service in New York City, and Director of Pediatrics at the George and Robert Carter Community Health Center in Queens. Dr. Francis received her B.A. from Hunter College in New York City, and an M.A. in Chemistry from Columbia University. She received her M.D. from Yale University. She took a rotating internship at Michael Reese Hospital, Chicago, in 1950-1951. She has had a private practice in pediatrics from 1955 to the present. In 1978-1979, she took a residency in internal medicine at Brooklyn-Cumberland Medical Center, and in 1979-1980 and 1980-1981 was a Hematology Fellow at Bronx-Lebanon Medical Center and Coney Island Hospital. She is a member of the American Medical Association, the National Medical Association, the American Board of Pediatrics, and the American Medical Women's Association. She is a former member of the HEW Advisory Committee on Sickle Cell Disease.

Sister Sheila Lyne

Sister Sheila Lyne, R.S.M., is the President of Mercy Hospital and Medical Center, Chicago. She was appointed acting president in 1976, and in the following year became President. Previously, she was Vice President for Human Resources and Assistant Vice President for Ambulatory Services. In the 1960s, she was a nurse therapist, a supervising clinical specialist, a nursing supervisor and instructor, and a staff nurse. She was an Assistant Professor in the graduate school of the University of Iowa from 1967 to 1970. She received a B.S. in Nursing and an M.S. in Psychiatric Nursing from St. Xavier College in Chicago, and an M.B.A. from the University of Chicago. She is a member of the Chicago Board of Health, the Board for Opinions on Professional Nursing (State of Illinois), the American College of Hospital Administrators, the Institute of Medicine of Chicago, and a Trustee at Large and Member of the Executive Committee of the Illinois Hospital Association.

Barbara J. McNeil

Barbara J. McNeil is Professor of Radiology at Harvard Medical School, Brigham and Women's Hospital, and Professor of Clinical Epidemiology, Harvard Medical School. She is also Director of the Center for Cost-Effective Care, Brigham and Women's Hospital, and Deputy Director for Residency Training, Joint Program in Nuclear Medicine, Harvard Affiliated Hospitals. Dr. McNeil is a member of the Harvard-MIT Division of Health Sciences and Technology. She has a B.S. in Chemistry from Emmanuel College, an M.D. from Harvard Medical School, and a Ph.D. in Biological Chemistry from Harvard University. She is board certified by the American Board of Nuclear Medicine. Her professional and advisory activities are extensive, including membership on

the National Council on Health Care Technology, the board of trustees of the Society for Medical Decision Making, the VA Medical Research Service Cooperative Studies Evaluation Committee, the Radiopharmaceutical Advisory Committee of the U.S. FDA, and the Scientific and Technical Advisory Committee of the Special Programme for Research and Training in Tropical Diseases, WHO. She is a member of the American College of Radiology's Committee on Efficacy Studies, the Academic Council of the Society of Nuclear Medicine, the Institute of Medicine, the board of the Association for Health Services Research, and the National Council on Radiation Protection and Measurements. She is the author of 6 books and more than 100 professional articles and reports.

Richard J. Mellman

Richard J. Mellman retired in 1984 as Vice President and Actuary of the Prudential Insurance Company. He had been responsible since 1976 for coordinating the Company's policy on health issues in relation to developments in the private health insurance industry, the medical delivery system and government. Earlier, Mr. Mellman held various assignments in the Actuarial and Comptroller's departments and from 1950 to 1975 in the Group Insurance Department, where he played a major role in the design and development of several new coverages, including major medical, long-term disability, dental, term and paid-up, and personal accident insurance. He is a Fellow of the Society of Actuaries. He is a Phi Beta Kappa from Harvard University, where he received Bachelor's and Master's degrees in mathematics. He has been active on many committees of associations such as the Health Insurance Association of America, the American Council of Life Insurance, the Society of Actuaries, and the American Academy of Actuaries. He is the author of several papers on health issues and actuarial subjects and is a spokesman on health policy issues for the insurance industry. Mr. Mellman is a past member of the Council on Financing of the American Hospital Association. He has been a member of several New Jersey study commissions concerned with numerous health issues, including long-term care and hospital corporate structure.

James J. Mongan

James J. Mongan is the Executive Director of the Truman Medical Center, Kansas City, Missouri. From 1979 to 1981, he was the Associate Director for Health and Human Resources, Domestic Policy Staff, the White House. He was Deputy Assistant Secretary for Health Policy, and Special Assistant to the Secretary for National Health Insurance, of HEW from 1977 to 1979. For the seven years prior to that, he was a professional staff member of the Committee on Finance, U.S. Senate. He received his A.B. and his M.D. from Stanford University. He holds assistant professorships in the School of Nursing and in Health Care Administration at the University of Missouri, Kansas City. He is a member of the Governing Council of the Public-General Hospital Section of the American Hospital Association, the chairman of the Missouri Hospital Association Council on Research and Policy Development, and a member of the Missouri State Medical Association Commission on Continuing Education and Health Manpower.

John C. Nelson

John C. Nelson is a practicing obstetrician and gynecologist in Salt Lake City, Utah. He received his Bachelor's degree in Zoology from Utah State University, and his M.D. from the University of Utah College of Medicine. He took his internship at the Providence Hospital in Portland, Oregon, and a residency with the Department of Obstetrics and Gynecology of the University of Utah. He is board certified by the American Board of Obstetrics and Gynecology, and a Fellow of the American College of Obstetrics and Gynecology. He is a member of the American Medical Association, a delegate to the Utah State Medical Association House of Delegates, and American Medical Association Delegate from Utah. He serves on the Editorial Board of the Utah Medical Bulletin, the Board of Utah Health Cost Management Foundation, and on the American Medical Association's Health Policy Agenda for the American People—Work Group on Evaluation, Assessment, and Control. Dr. Nelson has been involved in cost containment efforts at local and state levels and is active in the American Cancer Society and numerous other medical and civic efforts.

Ernest W. Saward

Ernest W. Saward is, since 1970, Professor of Social Medicine and Professor of Medicine at the University of Rochester School of Medicine and Dentistry, Rochester, New York. From 1970 to 1980, he was also Associate Dean for Extramural Affairs at that institution. In 1978-1979, he was a Fellow at the Center for the Advanced Study in the Behavioral Sciences, and a Visiting Professor of Medicine and of Family, Community and Preventive Medicine, at Stanford University. From 1945 to 1970 he was the Medical Director, Permanente Clinic, Kaiser Foundation Hospitals and Kaiser Foundation Health Plan, Portland, Oregon. His A.B. is from Colgate University, and he received his M.D. degree from the University of Rochester. He is a Fellow of the American Association for the Advancement of Science, a member of the Institute of Medicine, vice chairman of the New York State Hospital Review and Planning Council, and a present or former member of a great many other committees and professional activities, including the Health Insurance Benefits Advisory Council (chairman), the National Professional Standards Review Council (chairman), and the Group Health Association of America (chairman of the board). He has published extensively on the topics of health care organization, especially prepaid group practice, quality control and peer review, and health cost control.

Steven A. Schroeder

Steven A. Schroeder is Chief of the Division of General Internal Medicine and Professor of Medicine, Department of Medicine, University of California at San Francisco, and a Member of the Institute for Health Policy Studies at UCSF. He is a practicing general internist and an attending physician at UCSF hospitals. He has a B.A. from Stanford University and his M.D. from Harvard Medical School. From 1971 to 1976 he was on the faculty of the George Washington University Medical Center, and from 1972 to 1976 was the Medical Director of the GWU Health Plan. In 1976, he became an Associate Professor in the Department of Medicine at UCSF. He was a Visiting Professor in the Department of Community Medicine of St. Thomas's Hospital Medical School, London, in 1982-1983. He is a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and a Member of the Institute of Medicine. Dr. Schroeder serves on the editorial boards of several journals, and is a consultant and advisor to numerous organizations, including the Association of American Medical Colleges, the Department of Health and Human Services, the former National Center for Health Care Technology, and the Robert Wood Johnson Foundation. He has published more than 60 papers on such topics as primary care, physicians and medical technology, preventive medicine, clinical iatrogenesis, and physician reimbursement.

Bert Seidman

Bert Seidman has been the Director of the Department of Occupational Safety, Health and Social Security of the AFL-CIO, Washington, D.C., since July 1983. From 1962 to 1966, he was the AFL-CIO European Economic Representative stationed in Paris and then Geneva. Prior to that, he served for 14 years as an economist in the Research Department of the AFL and AFL-CIO. In 1966, he became Director of the AFL-CIO Social Security Department. He was a member of the U.S. Labor Delegation to the annual conference of the ILO from 1958 to 1976, and from 1972 to 1975 was a member of the ILO Governing Body. In 1973 and 1974, he was the U.S. Worker Delgate to the ILO Conference. He has served on numerous committees, including the Federal Advisory Council on Employment Security, the Advisory Council on Health Insurance for the Disabled, the Task Force on Medicaid and Related Programs, the Advisory Council on Social Security, the Federal Hospital Council, the Health Insurance Benefits Advisory Council, the Blue Cross Advisory Committee, the 1981 White House Conference on Aging (the Advisory Committee and Chairman of the Technical Committee on Retirement Income). At present, he is a member of the HMO Industry Council, the Board of Trustees of Group Health Association of America and the National Advisory Committee to the Robert Wood Johnson Foundation on Community Programs for Affordable Health Care, and is a Vice President of the National Consumers League.

M. Keith Weikel

M. Keith Weikel has served since December 1984 as Executive Vice President and Chief Operating Officer, Manor HealthCare. He previously served as group vice president of American Medical International of Los Angeles and president of Friesen International, an AMI subsidiary based in Washington, D.C. He is the 1983 president of the Federation of American Hospitals (FAH). Dr. Weikel received a Master of Science degree in pharmacy administration, and a Ph.D. in marketing and economics from the University of Wisconsin. Prior to joining AMI in 1978, he worked seven years for the Department of Health and Human Services, where as Commissioner of the Medical Services Administration, he administered the Medicaid program. His private sector experience also includes five years with the U.S. subsidiary of a major international pharmaceuticals firm.

Irwin Wolkstein

Irwin Wolkstein is a principal officer in the consulting firm of Health Policy Alternatives, Inc., located in Washington, D.C. From 1975 to 1978, he was Associate Director of the Washington office of the American Hospital Association, where he was responsible for dealing with legislative and regulatory issues in the health field. Prior to 1975, he was Deputy Director of the Medicare program in charge of program policy, and Director of the Social Security Administration's legislative activities in regard to health insurance. He served as the principal Social Security Administration adviser to the Congress on Medicare proposals. Mr. Wolkstein is a graduate of the University of Michigan, and is the author of more than 20 published articles on health policy and financing, including "Hospital Financing—the Impossible and the Possible Dream," *Bulletin of the New York Academy of Medicine*, January 1979; and "Health Technology: the Hope and the Fear," *Medical Instrumentation*, May-June, 1978.

PROSPECTIVE PAYMENT ASSESSMENT COMMISSION POLICY STATEMENT

Responsibilities.—The Prospective Payment Assessment Commission (ProPAC) has two major responsibilities: (1) recommending annually to the Secretary of the Department of Health and Human Services the appropriate annual percentage change in payment for hospital inpatient discharges. The Commission is to report its recommendations to the Secretary by April 1st of each year; (2) consulting with and recommending to the Secretary needed changes in the diagnosis related group (DRG) classification (e.g., new DRGs, modifications to existing DRGs) and needed changes in the relative weighting factors of the DRGs for discharges beginning October 1, 1985 and at least every four years thereafter. In addition, the Commission is required to report to the Congress its evaluation of any adjustments made by the Secretary regarding the DRG classification and weighting factors.

In making its recommendations, the Commission will consider the hospital market basket, hospital productivity, technological and scientific advances, quality of care and long-term cost-effectiveness of services. In order to carry out its responsibility to identify medically appropriate patterns of health resources use, the Commission is required to collect and assess information on regional variations in medical practice, length of hospitalization and the safety, efficacy and cost-effectiveness of new and existing medical and surgical procedures, practices, services and technologies. While the Commission will use existing information where possible, it will also use its research authority to award grants or contracts where existing information is inadequate.

The Commission shall focus initially on the two primary responsibilities cited above. Other responsibilities will be pursued to the limit of available staff and resources. The Commission will also monitor executive and legislative branch actions in regard to such areas as capital costs, inclusion of physicians in the DRG system and teaching hospital costs, but it will only become directly involved in them to the extent that they effect the Commission's direct responsibilities.

Relationship to the Public.—The Commission welcomes and encourages constructive relations with the public. Its meetings shall be open, and it will maintain a mailing list, to the extent its funds allow, in order to keep the interested public informed of its activities and meetings.

Further, the Commission encourages consumers, hospitals, physicians, business firms, and other individuals and groups to submit information, preferably in writing, with respect to the medical and surgical procedures, services, practices and technologies or other information relevant to the Commission's responsibilities. The Commission will consider this information in making reports and recommendations to the Secretary and Congress.

However, it is extremely important to remember that the Commission is not an appeals body. It has no appeals functions or regulatory powers. The information accompanying an appeal may be used as data on system-level trends.

RULES OF PROCEDURE

RULE 1.—The meetings of the Commission shall be held only at such times and in such places as the Chairman may designate, or as a majority of the Commission may request in writing, with adequate advance notice provided to all Members of the Commission.

RULE 2.—The Chairman shall preside over meetings of the Commission. In his absence, such other Commissioner as the Chairman may designate shall preside.

RULE 3.—No official report or recommendation shall issue from the Commission, nor shall any other official action be taken, unless approved by a majority of all Commissioners (including those voting by proxy) at a meeting duly called to consider such matter or by notation voting pursuant to Rule 7: Provided, That any Commissioner may make a report or recommendation supplementary to or dissenting from the majority decision on a report or recommendation.

RULE 4.—The Commission shall not appoint any person as Executive Director of the Prospective Payment Assessment Commission, nor shall the Commission remove any person from said position, unless a majority of all Commissioners assent: Provided, That a vote to remove the Executive Director shall not be taken in less than 20 calendar days after a written motion of such a vote, signed by at least three Commissioners, shall have been provided to each Commissioner: Provided further, That the Commission may by majority vote delegate to the Chairman the authority to select and appoint an Executive Director.

RULE 5.—Proposals for adopting, eliminating, amending, or modifying rules of the Commission shall be sent to all Commissioners at least 2 weeks before the final action is taken thereon, unless said action is taken by unanimous consent of all Commissioners. No rules of the Commission shall be adopted, eliminated, amended, or modified in any way unless a majority of all Commissioners assent.

RULE 6.—Except as otherwise provided by any other Rule of the Commission, eight of the Commissioners actually present shall constitute a quorum; no proxy shall be used for the purpose of establishing or maintaining a quorum.

RULE 7.—Proxy voting shall be permitted on all matters before the Commission: Provided, That the absent Commissioner has been informed of the matter on which he is being recorded and has affirmatively requested in writing, by telephone, or through personal instructions that he be so recorded: Provided further, That where the Chairman so directs and no Commissioner objects, voting by mail poll is allowed by concurrent presentation to Commission members and notation voting in writing to the Executive Director.

RULE 8.—There shall be kept a complete record of Commission proceedings and actions. A member of the Commission staff designated by the Chairman shall act as recording secretary of all proceedings before the Commission and shall prepare and circulate to all Commissioners the minutes of such proceedings. Minutes circulated will be considered reviewed but not formally approved unless objection is registered within two weeks of circulation. Formal approval action will be taken at the next Commission meeting. The records of the Commission shall be open to all Commissioners.

RULE 9.—The order of business before the Commission and any interpretation of the Rules of Procedure shall be decided by the Chairman, subject always to a vote on the appeal of his decision by a majority of Commissioners.

RULE 10.—The meetings of the Commission and its Subcommittee shall generally be held in open public session. Meetings, or portions thereof, may be closed, however, upon the affirmative vote of a majority of the Commission or subcommittee members present. Informal sessions of the Commission or Subcommittees, such as those at meal times, will not be regarded as a portion of a meeting; official reports, recommendations or other formal business will not be undertaken at such informal session except upon the affirmative vote of a majority of the Commission members

present. Any formal actions undertaken in closed session shall be orally reported to the next public meeting session.

RULE 11.—Formal voting on issues before the Commission and its subcommittees shall be conducted with open balloting except that closed ballots may be taken upon the affirmative vote of a majority of the Commission voting.

Policies Regarding Public Information and Public Meetings

1. It shall be the policy of the Commission that all actions, including decisions, recommendations and adoption of procedures, will be distributed to the public as soon as practical following the action. However, it shall further be Commission policy that background papers, issue analyses and other documents prepared at the request of the Commission or its Subcommittee by the staff shall not be distributed to the public until they have been formally reviewed and approved by the Commission or by one of its subcommittees for public distribution.
2. It shall be the policy of the Commission that minutes of Commission and Subcommittee meetings will be circulated to Commission members for review prior to public distribution. Corrections received from Commissioners within two weeks of circulation for review will be made and the minutes will then be available for public distribution with the statement they have been reviewed but not formally approved.
3. It shall be the policy of the Commission that the Chairman or Subcommittee Chairman report in public session actions taken in closed sessions.

Policy and Procedures for Identification of Issues

The Social Security Amendments of 1983 (Pub.L. 98-21) authorized the Prospective Payment Assessment Commission (ProPAC) to collect and assess a broad range of information.

To assist in the collection and assessment of information, the law specifically requires the Commission to adopt procedures allowing any interested party to submit information regarding medical and surgical procedures (including new practices such as the use of new technologies and treatment modalities). The Commission is to consider this information in many reports and recommendations to Congress.

The Commission has adopted a process and guidelines for the identification and analysis of issues related to its responsibility to develop recommendations regarding the DRG classification and weights. An early step in the process is the identification of issues. To assist ProPAC, the following procedures will be followed:

1. A notice was published in the Federal Register (Vol. 50, No. 8, January 11, 1985) briefly describing the process, guidelines, and outline of the types of information necessary for analysis. Interested parties are encouraged to submit information to the Prospective Payment Assessment Commission.
2. The process, guidelines, and outline of the types of information necessary for analysis will be mailed to all individuals and groups who have asked to be on ProPAC's mailing list.
3. The process, guidelines, and outline of the types of information necessary for analysis will be distributed to professional societies, hospitals, trade associations, other groups representing manufacturers and distributers of devices, supplies, and services, groups representing employers, employees, and beneficiaries, governmental organizations, third-party payers, and other groups as identified.

Policies Regarding Public Information and Meetings

1. It shall be the policy of the Commission that all actions, including decisions, recommendations and adoption of procedures, will be distributed to the public as soon as practical following the action. However, it shall further be Commission policy that background

papers, issue analyses and other documents prepared at the request of the Commission or its Subcommittee by the staff shall not be distributed to the public until they have been formally reviewed and approved by the Commission or by one of its subcommittees for public distribution.

2. It shall be the policy of the Commission that minutes of Commission and Subcommittee meetings will be circulated to Commission members for review prior to public distribution. Corrections received from Commissioners within two weeks of circulation for review will be made and the minutes will then be available for public distribution with the statement they have been reviewed but not formally approved.
3. It shall be the policy of the Commission that the Chairman or Subcommittee Chairman report in public session actions taken in closed sessions.

COMMISSION STRUCTURE, ASSIGNMENTS, AND MEETING DATES

Structure and Assignments

Subcommittee on Data Development and Research

The subcommittee is charged with identifying data needs and availability of data sources relevant to the Commission's responsibilities. The subcommittee, in consultation with interested parties and experts, will analyze issues related to data needs, sources and availability as well as the strengths and weaknesses of the data and will report its findings to the full Commission. Where data is needed but unavailable, the subcommittee will develop options and recommendations for developing the data for presentation to the Commission.

Members

Steven Schroeder, *Chair*
Richard Mellman
Yvette Francis
Irwin Wolkstein
Harold Cohen
Barbara McNeil

Subcommittee on Hospital Productivity and Cost-Effectiveness

The subcommittee is charged to identify and examine procedures and issues related to the measurement of productivity and cost-effectiveness including an examination of the hospital market basket and related variations in the provision of hospital services. The subcommittee, in consultation with interested parties and experts, will analyze issues related to hospital productivity and cost-effectiveness and present its findings including options and recommendations to the full Commission.

Members

Harold Cohen, *Chair*
James Mongan
Yvette Francis
Bert Seidman
Sheila Lyne
Keith Weikel
Richard Mellman

Subcommittee on Diagnostic and Therapeutic Practices

The subcommittee is charged with identifying and examining technological and scientific advances, changing treatment patterns and quality of care. The subcommittee will be charged with examining the safety, efficacy and relative cost-effectiveness of medical and surgical procedures, services and technologies as they relate to the primary responsibilities of the Commission. The subcommittee, in consultation with interested parties and experts, will analyze issues related to the assessment of new and existing procedures, services and technologies and present its findings including options and recommendations to the full Commission.

Members

Barbara McNeil, *Chair*
Ernest Saward
Karl Bays
Steven Schroeder
John Colloton
Irwin Wolkstein
John Nelson

Meeting Dates

Subcommittee on Hospital Productivity and Cost-Effectiveness

July 9-10, 1984
August 9-10, 1984
September 11, 1984
October 15-16, 1984
December 10-11, 1984
January 15, 1985
February 12, 1985
March 5, 1985

Subcommittee on Diagnostic and Therapeutic Practices

July 4-5, 1984
September 10-11, 1984
October 9-10, 1984
December 12, 1984
February 12, 1985
March 5, 1985

Subcommittee on Data Development and Research

November 7, 1984
January 16, 1985
February 13, 1985
March 6, 1985

Prospective Payment Assessment Commission

December 19, 1983
February 2-3, 1984
May 30, 1984
September 12, 1984
November 7, 1984
January 16, 1985
February 13, 1985
March 6, 1985

STATUTORY MANDATE OF THE COMMISSION

Congress established the Prospective Payment Assessment Commission ("ProPAC") in Pub.L. 98-21, (the Social Security Amendments of 1983), April 20, 1983. The various responsibilities of ProPAC are set forth in Section 1862(a) and Section 1886 of the Social Security Act as amended by Pub.L. 98-21 and as amended by Pub.L. 98-369 (the Deficit Reduction Act of 1984), July 18, 1984. Further responsibilities are set forth in the Deficit Reduction Act of 1984, and the Report of the House Appropriations Committee, H. Rep. No. 911, 98th Cong., 2d Sess. (1984) 139,140, accompanying the appropriations legislation for ProPAC for fiscal year 1985, Pub.L. 98-619, November 8, 1984. The following are the relevant passages of these legislative sources.

Section 1886(d)(4)(C) and (D) of the Social Security Act

(C) The Secretary shall adjust the classifications and weighting factors established under subparagraphs (A) and (B), for discharges in fiscal year 1986 and at least every four fiscal years thereafter, to reflect changes in treatment patterns, technology, and other factors which may change the relative use of hospital resources.

(D) The Commission (established under subsection (e)(2)) shall consult with and make recommendations to the Secretary with respect to the need for adjustments under subparagraph (C), based upon its evaluation of scientific evidence with respect to new practices, including the use of new technologies and treatment modalities. The Commission shall report to the Congress with respect to its evaluation of any adjustments made by the Secretary under subparagraph (C).

Section 1886(e)(2) through (6) of the Social Security Act

(2) The Director of the Congressional Office of Technology Assessment (hereinafter in this subsection referred to as the "Director" and the "Office," respectively) shall provide for appointment of a Prospective Payment Assessment Commission (hereinafter in this subsection referred to as the "Commission"), to be composed of independent experts appointed by the Director (without regard to the provisions of title 5, United States Code, governing appointments in the competitive service). In addition to carrying out its functions under subsection (d)(4)(D), the Commission shall review the applicable percentage increase factor described in subsection (b)(3)(B) and make recommendations to the Secretary on the appropriate percentage change which should be effected for hospital inpatient discharges under subsections (b) and (d) for fiscal years beginning with fiscal year 1986. In making its recommendations, the Commission shall take into account changes in the hospital market-basket described in subsection (b)(3)(B), hospital productivity, technological and scientific advances, the quality of health care provided in hospitals (including the quality and skill level of professional nursing required to maintain quality care), and long-term cost-effectiveness in the provision of inpatient hospital services.

(3) The Commission, not later than the April 1 before the beginning of each fiscal year (beginning with fiscal year 1986), shall report its recommendations to the Secretary on an appropriate change factor which should be used (instead of the applicable percentage increase described in subsection (b)(3)(B)) for inpatient hospital services for discharges in that fiscal year.

(4) Taking into consideration the recommendations of the Commission, the Secretary shall determine for each fiscal year (beginning with fiscal year 1986) the percentage change which will apply for purposes of this section as the applicable percentage increase (otherwise described in subsection (b)(3)(B)) for discharges in that fiscal year, and which will take into account amounts necessary for the efficient and effective delivery of medically appropriate and necessary care of high quality.

(5) The Secretary shall cause to have published in the Federal Register, not later than:

(A) the June 1 before each fiscal year (beginning with fiscal year 1986), the Secretary's proposed determination under paragraph (4) for that fiscal year for public comment, and

(B) the September 1 before such fiscal year after such consideration of public comment on the proposal as is feasible in the time available, the Secretary's final determination under such paragraph for that year.

The Secretary shall include in the publication referred to in subparagraph (A) for a fiscal year the report of the Commission's recommendations submitted under paragraph (3) for that fiscal year.

(6)(A) The Commission shall consist of 15 individuals. Members of the Commission shall first be appointed no later than April 1, 1984, for a term of three years, except that the Director may provide initially for such shorter terms as will insure that (on a continuing basis) the terms of no more than seven members expire in any one year.

(B) The membership of the Commission shall provide expertise and experience in the provision and financing of health care, including physicians and registered professional nurses, employers, third party payors, individuals skilled in the conduct and interpretation of biomedical, health services, and health economics research, and individuals having expertise in the research and development of technological and scientific advances in health care. The Director shall seek nominations from a wide range of groups, including:

(i) national organizations representing physicians, including medical specialty organizations and registered professional nurses and other skilled health professionals;

(ii) national organizations representing hospitals, including teaching hospitals;

(iii) national organizations representing manufacturers of health care products; and

(iv) national organizations representing the business community, health benefit programs, labor, and the elderly.

(C) Subject to such review as the Office deems necessary to assure the efficient administration of the Commission, the Commission may:

(i) employ and fix the compensation of an Executive Director (subject to the approval of the Director of the Office) and such other personnel (not to exceed 25) as may be necessary to carry out its duties (without regard to the provisions of title 5, United States Code, governing appointments in the competitive service);

(ii) seek such assistance and support as may be required in the performance of its duties from appropriate Federal departments and agencies;

(iii) enter into contracts or make other arrangements, as may be necessary for the conduct of the work of the Commission (without regard to section 3709 of the Revised Statutes (41 U.S.C.5));

(iv) make advance, progress, and other payments which relate to the work of the Commission;

(v) provide transportation and subsistence for persons serving without compensation; and

(vi) prescribe such rules and regulations as it deems necessary with respect to the internal organization and operation of the Commission.

Section 10(a)(1) of the Federal Advisory Committee Act shall not apply to any portion of a

Commission meeting if the Commission, by majority vote, determines that such portion of such meeting should be closed.

(D) While serving on the business of the Commission (including travel-time), a member of the Commission shall be entitled to compensation at the per diem equivalent of the rate provided for level IV of the Executive Schedule under section 5315 of title 5, United States Code; and while so serving away from home and his regular place of business, a member may be allowed travel expenses, as authorized by the Chairman of the Commission. Physicians serving as personnel of the Commission may be provided a physician comparability allowance by the Commission in the same manner as Government physicians may be provided such an allowance by an agency under section 5948 of title 5, United States Code, and for such purpose subsection (i) of such section shall apply to the Commission in the same manner as it applies to the Tennessee Valley Authority.

(E) In order to identify medically appropriate patterns of health resources use in accordance with paragraph (2), the Commission shall collect and assess information on medical and surgical procedures and services, including information on regional variations of medical practice and lengths of hospitalization and on other patient-care data, giving special attention to treatment patterns for conditions which appear to involve excessively costly or inappropriate services not adding to the quality of care provided. In order to assess the safety, efficacy, and cost-effectiveness of new and existng medical and surgical procedures, the Commission shall, in coordination to the extent possible with the Secretary, collect and assess factual information, giving special attention to the needs of updating existing diagnosis-related groups, establishing new diagnosis-related groups, and making recommendations on relative weighting factors for such groups to reflect appropriate differences in resource consumption in delivering safe, efficacious, and cost-effective care. In collecting and assessing information, the Commission shall:

(i) utilize existing information, both published and unpublished, where possible, collected and assessed either by its own staff or under other arrangements made in accordance with this paragraph;

(ii) carry out, award grants or contracts for, original research and experimentation, including clinical research, where existing information is inadequate for the development of useful and valid guidelines by the Commission; and

(iii) adopt procedures allowing any interested party to submit information with respect to medical and surgical procedures and services (including new practices, such as the use of new technologies and treatment modalities), which information the Commission shall consider in making reports and recommendations to the Secretary and Congress.

(F) The Commission shall have access to such relevant information and data as may be available from appropriate Federal agencies and shall assure that its activities, expecially the conduct of original research and medical studies, are coordinated with the activities of Federal agencies.

(G)(i) The Office shall report annually to the Congress on the functioning and progress of the Commission and on the status of the assessment of medical procedures and services by the Commission.

(ii) The Office shall have unrestricted access to all deliberations, records, and data of the Commission, immediately upon its request.

(iii) In order to carry out its duties under this paragraph, the Office is authorized to expend reasonable and necessary funds as mutually agreed upon by the Office and the Commission. The Office shall be reimbursed for such funds by the Commission from the appropriations made with respect to the Commission.

(H) The Commission shall be subject to periodic audit by the General Accounting Office.

(I)(i) There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this paragraph.

(ii) Eighty-five percent of such appropriation shall be payable from the Federal Hospital Insurance Trust Fund, and 15 percent of such appropriation shall be payable from the Federal Supplementary Medical Insurance Trust Fund.

(J) The Commission shall submit requests for appropriations in the same manner as the Office submits requests for appropriations, but amounts appropriated for the Commission shall be separate from amounts appropriated for the Office.

Section 1862(a) of the Social Security Act

(a) Notwithstanding any other provison of this title, no payment may be made under part A or part B for any expenses incurred for items or services:

> (1)(A) which, except for items and services described in subparagraph (B), (C), or (D), are not reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member,
>
> (B) in the case of items and services described in section 1861(s)(10), which are not reasonable and necessary for the prevention of illness,
>
> (C) in the case of hospice care, which are not reasonable and necessary for the palliation or management of terminal illness, and
>
> (D) in the case of clinical care items and services provided with the concurrence of the Secretary and with respect to research and experimentation conducted by, or under contract with, the Prospective Payment Assessment Commission or the Secretary, which are not reasonable and necessary to carry out the purposes of section 1886(e)(6);...

Section 2304(b)(2) and (3) of the Deficit Reduction Act of 1984

(2) The Prospective Payment Assessment Commission, established under section 1886(e) of the Social Security Act, shall review and report to the Committee on Ways and Means of the House of Representatives and the Committee on Finance of the Senate regarding the appropriateness of the payment amounts provided under section 1886(d) of such Act for inpatient hospital services associated with implantation or replacement of pacemaker devices and pacemaker leads. Such review shall take into account the time, difficulty, and costs associated with such procedures at the current time in comparison with the time, difficulty, and costs associated with such procedures upon which the payment rates for such procedures under part A of title XVIII of such Act are based.

(3) The Secretary and the Commission shall each complete the review described in paragraph (1) or (2), respectively, of this subsection and report on such review not later than March 1, 1985.

H. Rep. No. 861, 98th Cong., 2d Sess. 1299 (1984)

(Report of the Committee of Conference, Deficit Reduction Act of 1984)

Limits for Exempted Hospitals.—...the rate of increase for exempted hospitals and exempted hospital units shall not exceed market basket plus one-quarter percentage point in the first year and shall not exceed market basket plus one-quarter of one percentage point in the second year.

The Secretary, taking into account the recommendations of the Prospective Payment Commission, shall continue to have authority to establish a rate of increase, as under current law, but not more than market basket plus one-quarter of one percentage point during the applicable period.

H. Rep. No. 911, 98th Cong., 2d Sess. 140 (1984)

(Report of the Committee on Appropriations, Pub.L. 98-619)

...The Committee believes that the role of the Commission is that of a highly knowledgeable independent panel to advise the executive and legislative branches on the medicare reimbursement system. While this advice includes rate setting and technology assessment, the Committee believes that the primary role of the Commission lies in a broader evaluation of the impact of Public Law 98-121 [sic] on the American health care system. The Committee therefore directs that the Commission submit an annual report to the Con-

gress which expresses its view on these issues. The first report should be submitted by October 1, 1985. Included in the amount approved by the Committee is $1 million for research. The Committee expects a substantial portion of these funds to be devoted to this new report.

PROSPECTIVE PAYMENT TERMS

The following terms are frequently referenced in discussions concerning the Medicare prospective payment system (PPS). Some of the definitions are from the September 1, 1983, *Federal Register* (FR), Volume 48, Number 171. The page number in that FR is listed in parentheses following the definition. It should be noted that some of the terms may be defined with minor differences in more than one place in the *Federal Register*. Other definitions are from various Health Care Financing Administration (HCFA) publications and other sources. Where necessary, ProPAC has developed definitions consistent with its use of the terms in Commission documents.

Budget Neutrality.—The legislative requirement that Medicare payment for total inpatient operating costs to hospitals under the prospective payment system during fiscal years 1984 and 1985 should be neither greater nor less than the estimate of what would have been paid under the law in effect (the Tax Equity and Fiscal Responsibility Act) prior to enactment of prospective payment. (ProPAC)

Case Mix.—The composition of a health program's patients who are classified by diagnosis or by some other measure. (ProPAC Definition)

Case-Mix Index (Medicare).—A measure of the costliness of cases treated by a hospital relative to the cost of the national average of all Medicare hospital cases, using diagnosis-related group (DRG) weights as a measure of relative costliness of cases. (Medicare)

Charge.—The amount of money asked for by a seller in return for a product or a service. A hospital's charge is equivalent to its list or asking price for a service. Medicare, Medicaid, and some other payers, however, do not pay charges for inpatient hospital services. (ProPAC)

Children's Hospital.—A hospital whose inpatients are predominantly under 18 years of age and which has a Medicare provider agreement meeting applicable requirements. (FR 39758)

Claim.—A request to a third party payer (e.g., private insurer, government payment program, employer payment program) by a person covered by the third party program or an assignee (usually a provider of service) for payment of benefits covered by the third party. (ProPAC)

Classification.—The act or process of systematically arranging in groups or categories according to established criteria. Under PPS, patients are classified into disease categories using the ICD-9-CM classification system and then further grouped into diagnosis-related groups. (ProPAC)

Comorbidity.—A pre-existing condition that will, because of its presence with a specific principal diagnosis, increase length of stay by at least one day in approximately 75 percent of cases. For the purposes of PPS, HCFA has defined a set of conditions which are considered comorbidities. (Health Care Financing Administration)

Complication.—A condition that arises during the hospital stay that prolongs length of stay by at least one day in approximately 75 percent of cases. For the purposes of PPS, HCFA has defined a list of conditions which are considered complications. (Health Care Financing Administration)

Cost.—The cost to the buyer is the amount of money paid by the buyer to acquire a good or service. The cost to the seller is the amount of money paid by the seller for the inputs used to produce a service or good. (ProPAC)

Cost-Based Reimbursement.—A method of paying for services based on the costs incurred by a provider to furnish those services. Under Medicare, cost-based reimbursement became associated with a detailed, rigid, and prescribed set of rules governing payment. (ProPAC)

Diagnosis-Related Groups (DRGs).—A system for determining case-mix. Originally developed by researchers at Yale University, the DRG system index classifies patients into groups based on the International Classification of Diseases, the presence of a surgical procedure, patient age, presence or absense of significant comorbidities or complications, and other relevant criteria. The DRG classification attempts to categorize patients into clinically coherent and homo-

geneous groups with respect to resource use. PPS currently uses 468 mutually exclusive DRGs to classify patients and determine case mix. The first 467 DRGs represent categories wherein the principal procedure is consistent with the principal diagnosis assigned to the patient. DRG 468 represents cases in which the principal procedure is unrelated to the valid principal diagnosis. DRG codes 469 and 470 may be assigned if the fiscal intermediary finds certain errors in bills submitted by hospitals. When this occurs, the bills are returned to the hospital for correction. DRGs 469 and 470 are not used as a basis of payment. (ProPAC)

DRG Weight.—A number which is intended to reflect the relative resource consumption associated with each DRG. That is, each DRG weight reflects the average cost across all hospitals of treating cases classified in that DRG compared to the average cost for all DRGs. Currently, the DRG weights range from .1842 for DRG 382 (false labor) to 6.8631 for DRG 457 (extensive burns). Because Medicare does not cover heart transplants, DRG 103 has not been assigned a weight. (ProPAC)

Discharge.—A hospital inpatient is discharged when: 1) the patient is formally released from the hospital (except when transferred to another hospital under the prospective payment system—see definition of Transfer); 2) the patient dies in the hospital; or 3) the patient is transferred to a hospital or unit that is excluded from the prospective payment system. (FR 39818)

Discretionary Adjustment Factor (DAF).—The single quantitative adjustment which is added to or subtracted from the hospital market basket measure of inflation to arrive at the update factor. (ProPAC)

Exempt Hospitals and Units.—Childrens', long-term care (average length of stay over 25 days), rehabilitation, and psychiatric hospitals are specifically excluded from the prospective payment system. Rehabilitation or psychiatric "distinct part" subunits of acute care hospitals are exempted if they meet certain criteria as specified by the Secretary. Hospitals located in U.S. Territories (e.g., Puerto Rico), alcohol or drug abuse treatment hospitals or distinct alcohol or drug abuse treatment units of acute hospitals (until October 1, 1985), Federal hospitals, and Christian Science Sanatoria are also exempted. Cancer treatment and research facilities may receive an exemption if they meet criteria established by the Secretary. Exempt hospitals remain under cost-based reimbursement, subject to the TEFRA target rate of increase limits. (FR 39758)

Expenditure.—The amount of money paid for a good or service during a specified time period. The actual service or good could have been acquired or used prior, during or subsequent to the period in which the money is paid. (ProPAC)

Federal Standardized Payment Amount.—The portion of the total prospective payment rate derived from national and regional standardized prospective payment amounts. During the first three years of Medicare's prospective payment system, hospitals will be paid at a rate which is a blend of a Federal and hospital-specific portion (see Hospital-Specific Portion definition). After three years, the payment rate will be entirely based on the Federal standardized payment amount. (ProPAC)

Grouper.—Under PPS, a computer program used by the intermediary to assign discharges to the appropriate DRG using information abstracted from the inpatient bill. (ProPAC)

Homogeneous Patient Groups.—A group of patients who consume similar types and amounts of resources. This is an important criterion for developing patient classification systems. Homogeneity of groups is often tested using statistical techniques, leading to the use of the term, statistical homogeneity. Patient classifications are typically designed to be understandable to the medical community as well as statistically homogeneous. (ProPAC)

Hospital Market Basket.—The set of goods and services purchased by hospitals. (ProPAC)

Hospital Market Basket (Input Price) Index.—A hospital market basket index is constructed by: (1) specifying the inputs that hospitals purchase and combining inputs into components; (2) determining a weight for each component that represents its share of total hospital expenses; and (3) identifying measures of price changes for each component. The overall change in the price of the market basket is computed by multiplying each component's price change by its weight, and summing across all components. (ProPAC)

Hospital-Specific Portion or Payment Amount.—During the first three years of the prospective payment system, the portion of the Medicare prospective payment rate which is derived from each hospital's own cost experience. (ProPAC)

International Classification of Disease, Ninth Revision, Clinical Modification (ICD-9-CM).—A system for classifying diseases and procedures to facilitate collection of uniform and comparable health information. The disease classification is revised every ten years and the ICD-9 is the 9th version. This system is the basis for grouping patients into DRGs. (Health Care Financing Administration)

Long-Term Care Hospital.—Those hospitals which have an average inpatient length of stay more than 25 days. (FR 39758)

Major Diagnostic Category (MDC).—Within the DRG classification system, there are 23 MDC categories based on body system involvement and disease etiology. All DRGs fit into one of the 23 MDCs. (ProPAC)

Medical Technology.—The drugs, devices, and medical and surgical procedures used in medical care, and the organizational and supportive systems within which such care is provided. (Office of Technology Assessment)

Medicare Cost Report (MCR).—An annual report required of all institutions participating in the Medicare program which records costs incurred by the institution for providing services to all patients. The costs are defined and reported according to highly specific categories as required by the Medicare program. The 1981 MCRs were used in the development of both the Federal standardized amounts and the DRG weights, which were used to create DRG "prices" under the Medicare prospective payment system. (ProPAC)

Medicare Provider Analysis and Review File (MEDPAR File).—A HCFA data file which contains billed charge data and clinical characteristics such as principal diagnosis and principal procedures associated with each claim submitted by hospitals. Until October 1, 1983, the MEDPAR file was developed from a 20 percent sample of claims. As of October 1, 1983, the file has been expanded to cover 100 percent of Medicare claims and to include more detailed diagnostic data on all Medicare discharges. The 1981 MEDPAR file was used to create the DRG weights and to derive the case-mix data used in calculating the standardized portion of the prospective payment rates. (ProPAC)

Morbidity.—A diseased state; often used in the context of a "morbidity rate," i.e., the rate of disease or proportion of diseased persons in a population. In common clinical usage, complications or comorbidities are referred to as morbidity. (ProPAC)

Non-Physician Services.—All services provided to inpatients by personnel other than physicians as defined by the Secretary. Non-physician services would include, for example, services of a physical therapist, or radiology technician. (FR 39793-94)

Normalization.—The adjustment of all DRG weights after recalibration or reweighting so that the average case weight equals a predetermined level. (ProPAC)

Outliers (atypical cases).—Under the Medicare program, cases which have an extremely long length of stay (day outlier) or extraordinarily high costs (cost outlier) when compared to most discharges classified in the same DRG. (FR 39776)

Payment.—The generic term for various types of monetary compensation for services received or goods acquired. Payment can be made before or after services are received or goods are acquired. (ProPAC)

Peer Review Organizations (PROs).—Successor organizations to Professional Standards Review Organizations (PSROs) which perform medical peer review of Medicare claims, including review of validity of hospital diagnosis and procedural information; completeness, adequacy, and quality of care; appropriateness of admission and discharge; and appropriateness of PPS outlier cases. A PRO is composed of (or has available to it) a substantial number of MDs or DOs to carry out the review. HCFA contracts for PRO review for all Medicare patients in a specified geographic area; in the absence of a PRO, the fiscal intermediary performs these reviews. (ProPAC)

Physician Services.—Medical services to individual patients and payable under Part B if: (1) the services are personally furnished to an individual patient by a physician; (2) the services contribute directly to the diagnosis or treatment of an individual patient; (3) the services ordinarily require performance by a physician; and (4) if applicable, the services meet certain special rules that apply to services to certain physician specialties, i.e., anesthesiologists, radiologists and pathologists. (FR 39794)

Price.—As generally used, the amount of money asked for by a seller in return for a good or service. In the Medicare PPS, the price for a hospital discharge is set by the buyer, the Medicare program. (ProPAC)

Principal Diagnosis.—That condition which after study is determined to be the reason chiefly responsible for occasioning the admission of the patient to the hospital. (FR 39761)

Principal Procedure.—The principal procedure is: (1) the one most related to the principal diagnosis; or (2) the one which was performed for definitive treatment rather than performed for diagnostic or exploratory purposes, or was necessary to treat a complication. If only one procedure is performed it is considered the principal procedure. (Health Care Financing Administration)

Prospective Payment (Pricing).—A method of paying for health care services in which (1) full amounts or rates of payment are established in advance, and (2) providers are paid these amounts or rates regardless of the costs they actually incur. A distinction is sometimes made between payment and pricing based on whether payment is made in advance for services or the price is simply set in advance. (ProPAC)

Psychiatric Hospital.—An institution that (1) primarily engages in providing, by or under the supervision of a physician, psychiatric services for the diagnosis and treatment of mentally ill persons; (2) satisfies the statutory requirements of a "hospital"; (3) maintains clinical records on all patients such that the degree and intensity of the treatment provided can be readily discerned; (4) meets the special staff requirements for psychiatric hospitals; and (5) is accredited by the Joint Commission on Accreditation of Hospitals. (FR 39755)

Reasonable Charges.—Basis of payment under which Medicare Part B medical and other health services are paid. The reasonable charge is the lowest of the actual charge billed by the physician or supplier, the charge the physician or supplier customarily bills his patients for the same service, or the prevailing charge most physicians or suppliers in that locality bill for the same service. Currently, the term "approved charge" replaces the term "reasonable charge." (ProPAC)

Reasonable Costs.—Medicare's determination of a provider's direct or indirect costs that are necessary and proper for the efficient delivery of needed health care services to Medicare beneficiaries. Prior to PPS, services to beneficiaries covered by Medicare Part A were reimbursed on the basis of reasonable cost. (ProPAC)

Rebasing of PPS Standardized Amounts.—The redetermination of the base upon which to project the PPS standardized amounts from new or more recent data, generally cost data. (ProPAC)

Rebasing the Hospital Market Basket Weights.—The updating of the hospital market basket weights to reflect changes in the mix of inputs used by hospitals. (ProPAC)

Rebundling of Hospital Payment.—Payment to hospitals for inpatient services which were formerly paid to other suppliers under separate billing. For Medicare, rebundling refers to payment to hospitals under Part A for nonphysician services to hospital inpatients which were formerly (prior to PPS) paid to other suppliers under Part B. For example, the inclusion of certain laboratory tests in the Part A payment which previously were billed separately under Part B. (ProPAC)

Recalibration.—The adjustment of all DRG weights to reflect changes in relative resource use associated with all existing DRG categories and/or the creation or elimination of DRG categories. (ProPAC)

Reclassification.—The adjustment of certain DRG categories to reflect the creation or elimination of DRG categories or movement of certain diagnostic or procedure codes from one DRG category to another. After reclassification, the resulting categories may need to be reweighted. (ProPAC)

Rehabilitation Hospital.—A hospital which has a provider agreement with Medicare, treats an inpatient population of which at least 75 percent require intensive rehabilitative services for one or more of the conditions which are specified in regulation, and which meet other criteria specified by the Secretary in regulation. A rehabilitation hospital must provide active treatment in a number of therapeutic disciplines including physical and occupational therapy. (FR 39819)

Reimbursement.—To make repayment or pay back for expenses incurred. (ProPAC)

Reweighting.—The adjustment of only certain DRG weights to reflect changes in relative resource consumption. Reweighting can be done without reclassification. (ProPAC)

Standardized Amounts.—The average payment per case for hospitals in a region or nationally, developed using each hospital's average cost per discharge, but excluding costs not paid for under prospective payment, updated for inflation, adjusted for differences in area wage rates, teaching status, and case mix of the hospital (standardized) and adjusted for outlier payments, budget neutrality, and the addition of new expenses due to changes in statutory requirements. Currently, there are 20 standardized amounts, 18 regional amounts (urban/rural amounts for each of nine census regions), and two national amounts (urban/rural). (ProPAC)

Transfer.—For the purposes of PPS, a transfer is defined as the movement of a patient: (1) from one inpatient area or unit of the hospital to another area or unit of the hospital; (2) from the care of a hospital paid under prospective payment to the care of another such hospital; or, (3) from the care of a hospital under prospective payment to the care of a hospital in an approved statewide cost control program. (FR 39818)

Unbundling of Hospital Payment.—Separate payment to non-hospital suppliers for services provided

to hospital inpatients. For Medicare, unbundling of hospital payment refers to the billing under Part B for nonphysician services to hospital inpatients which are furnished to the hospital by an outside supplier or another provider. Except where a waiver has been granted by the Secretary, this form of unbundling is prohibited under PPS and all nonphysician services provided in an inpatient setting must be paid as hospital services. (FR 39792-93)

Unbundling of Hospital Inpatient Services.—The provision of services on an outpatient basis which were formerly furnished to inpatients (e.g., performance of diagnostic studies prior to a patient's admission, or the provision of rehabilitation services after the patient's discharge). Alternatively, unbundling can be viewed as the provision of hospital services by lease or other administrative arrangement with other suppliers. Unbundling of inpatient hospital services is not prohibited by law. (ProPAC)

Uniform Hospital Discharge Data Set (UHDDS).—A data set, based on the Uniform Hospital Abstract Minimum Data Set, that gives a minimum description of a hospital episode or admission. The UHDDS includes data on the age, sex, race, and residence of the patient; length of stay; diagnosis; responsible physicians; procedures performed; disposition of the patient; and source of payment. The UHDDS originally was developed by the National Center for Health Statistics. (ProPAC)

Updating Factor (Rate of Increase Factor).—The percentage change applied to the previous year's payment rates which takes into account the amounts necessary for the efficient and effective delivery of medically appropriate and necessary care of high quality. The update factor is to reflect changes in the prices of goods and services purchased by hospitals, the hospital "market basket," as well as changes in hospital productivity, technological advances, quality of care, and long-term cost-effectiveness of services. (ProPAC) More specifically, updating is the adjustment of the base year cost data for inflation. Referred to as an "updating" or "inflation" factor. (FR 39764)

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